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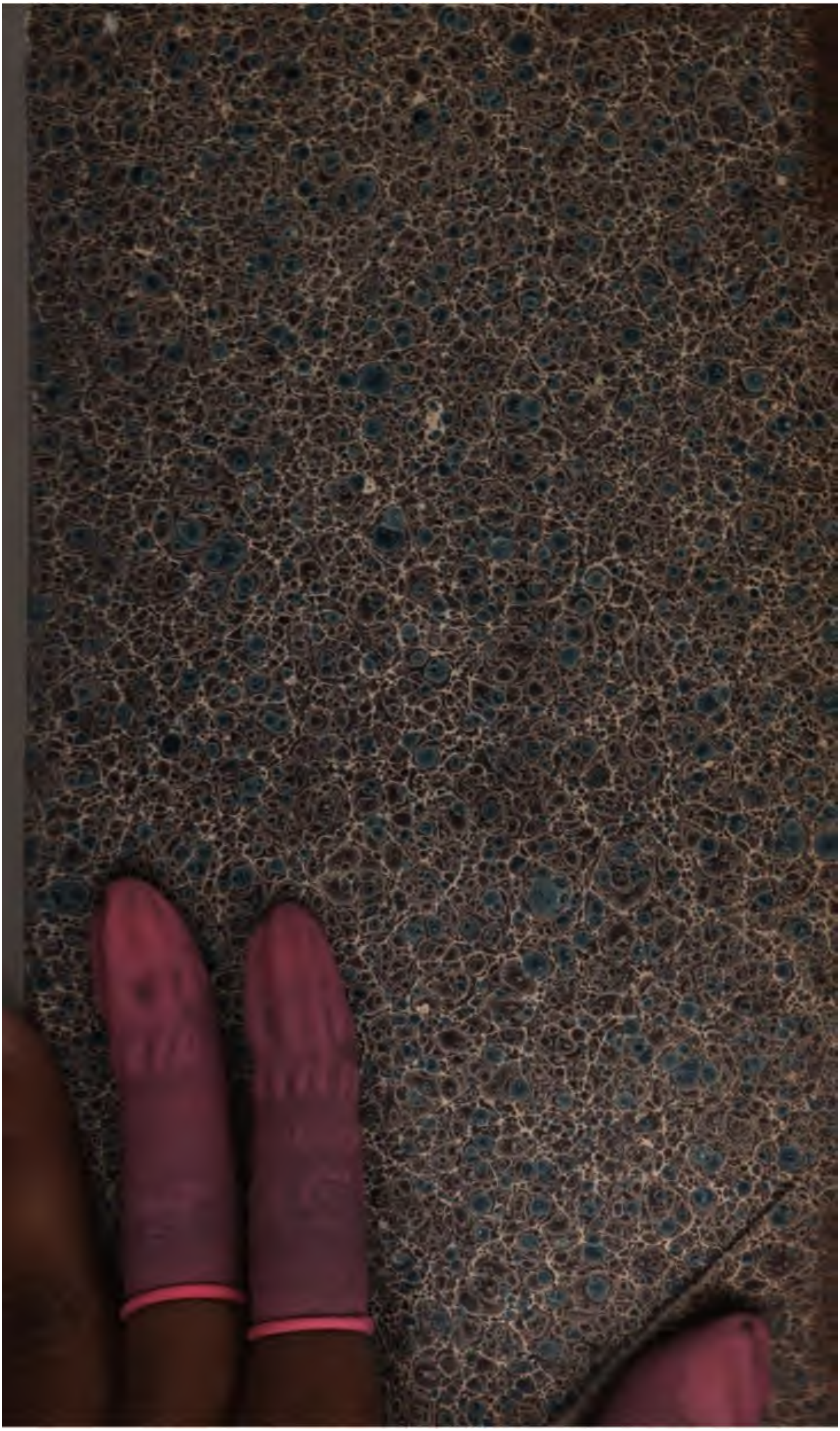

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COMMERCE, AGRICULTURE, MANUFACTURES, INTERNAL IMPROVEMENTS, POLITICAL ECONOMY, GENERAL LITERATURE, ETC.

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Art. I.—SLAVERY EXTENSION.

OF all the bugbears, or delusions of the North, that of "Slavery Extension" is the most general and the most dangerous; for, however wild and furious the numerous outbreaks of our northern brethren in the way of "Salem Witchcrafts" and "Millerisms," of "Spirit-rappings," "Woman's-rights," or other phantasies, including even "Abolitionism" itself, they are confined mainly to themselves; and whatever the results, whether "Progressive" or "Anti-progressive;" whether, like Mr. Webster's idea of the "Compromise," which gave to the North exactly what the South lost, "which was nothing at all;" whether, we repeat, our neighbors really retrograde forward or advance backward through the aid of these "philosophies," the consequences are their own; but when they undertake not only to enlighten us on our "moral duties," but to dictate what *they* think best for our material interest, and when such interference involves the whole social existence of the southern people, they trespass on ground that should be sacred, and is indeed dangerous to the North as well as to the South; for it directly involves the question of Union, and thus indirectly the whole question of republicanism.

Yet so fixed is the notion that "negro slavery" is an "evil," and so universally hostile is the northern mind to its extension, that in 1848 there was not a single newspaper or politician in the free states that dared to take ground in its favor. With three candidates for the Presidency in the field, not a single man supporting either dared to insinuate such a thing as slavery extension, but, on the contrary, uniformly represented them as directly hostile to such a contingency.

The supporters of General Cass declared that, as slavery did not exist in the territories then recently acquired from Mexico, and could not do so without the *lex loci,* or a law of Congress, that therefore the "Wilmot Proviso" was superfluous, and only calculated to annoy the South without any practical benefit whatever.

The democrats, on the contrary, who supported Mr. Van Buren, declared that the territorial courts would construe the Constitution in accordance with Mr. Calhoun's opinions on the

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into his support, in [illegible] elusion that the negro is a black white man, insisted that he should have the same "rights" in the territories as the whites themselves.

The northern supporters of Gen. Taylor differed but little, if any, from the abolitionists proper; for while the democrats, who supported Mr. Van Buren, placed their hostility to slavery in the territories mainly on the ground that it was an "evil" to the whites, and thus covertly appealed to that instinctive hostility to the negro, so universal at the North, they occupied the "high moral" ground that it was an "outrage on humanity," and therefore should be kept within its present limits, as the best means for extinguishing it altogether.

Thus all parties, and sections of parties, at the North, uniformly agreed in the fact of hostility to the further extension of slavery, and only differed in the means necessary to prevent such extension, or in the motives prompting their hostility.

Thus, too, those northern members of Congress, who comprehended the real character of the celebrated "Proviso," and that it was only the means to reach an end, abandoned it as soon as California adopted a constitution excluding "slavery;" and none but fanatics, or those incapable of distinguishing between means and ends, or an abstract principle from its practical application, continued to recall and worship it as some eternal and vital truth, when, in reality, even if slavery extension were an "evil" instead of a blessing, as it is, in fact, the "Proviso" was no longer even the shadow of a shade.

Since the admission of California, and the settlement of the territorial question, there has been a remarkable degree of quiet at the North on this subject, for the occasional irruptions or outbreaks, in respect to runaway slaves, are confined wholly to abolitionism, and are indications only of that moral disease which festers in the veins of that small portion of the northern people poisoned by Britishism, without any necessary, indeed without any connection whatever, with the question of slavery extension.

This quiet, however, is not the result of any change of opinion, but simply dependent on the fact, that there is no cause or occasion for that opinion to be called into exercise, or circumstances of any kind to call it into action. On the contrary, it is believed that it is quite as universal, and if occasion were offered, that it would manifest itself even more virulently than ever; and as circumstances, which if even foreseen cannot be avoided, must sooner or later present this occasion, it is desirable that the subject be discussed and understood, when all is calm and quiet, and before the storm of passion rolls over the land, rendering one section as incapable of reason as the other is impatient of its dictates.

What, then, is "Slavery Extension," or the "Wilmot Proviso," or the "Jeffersonian Ordinance," or even that "thunder" which Mr. Webster so pathetically lamented as having been stolen from him, or "Free Soil," or "Free Labor," that ignorance and fanaticism so flippantly and knowingly talks about, and writes about, and which some antiquated spinster in New-England, or cockney, who has never been beyond the sound of "Bow Bells" in Old England, understands perfectly, and decides unhesitatingly, when the oldest intellects and the most profound statesmen of the South themselves falter—and with illimitable interests at stake—with the moral and material welfare of millions directly at issue—with all the means at hand to form true conclusions, yet grope in doubt and uncertainty.

We say uncertainty, for however uniform the opinion of the South that "negro slavery," so called, is a normal or natural condition, and must therefore always exist so long as the white and black races are in contact, southern statesmen are by no means agreed in regard to its extension over Mexico, or the West Indies. Even Mr. Calhoun himself dreaded the further acquisition of Mexican territory, under the apprehension that it might be "Free Soil," and thus add still more to the preponderance of anti-slavery sentiment.

But to the inquiry, what is "Slavery Extension?" To understand this term or this expression, it is only necessary to refer to the past history of the country and to those facts that govern population, especially those facts that control populations made up of different races.

When negroes were first introduced into the then Anglo-American colonies, the white population was so limited as to create a great demand for laborers. This was before the European masses were so oppressed by debt and taxation as to seek in emigration the means of subsistence. Especially was this the case with British laborers; for, before the war of Independence, costing about a thousand millions, and the war waged by the British aristocracy to put down liberty in France, costing some three thousand millions more, British laborers were comparatively comfortable at home, and but few of them emigrated to the colonies.

Thus the importation of negroes and their employment, even in the middle and northern States, was, if not a necessity, at least a very natural consequence of the then existing state of things.

After the war of Independence, however, when the increased national debt of England brought with it increased taxation and oppression of the laboring classes, they commenced emigrating to America, and from the instinct of race as well as other causes, naturally settled in the northern and middle States.

This at once operated on the negro population in those States. The white emigrant, in a climate as natural as it was uncongenial to the negro, together with the inherent superiority of race, was infinitely more useful thus; though previously, and for a long while, the imported negroes were pushed from the seaboard into the interior and even into the extreme North, to supply the demand for laborers; a movement in the opposite direction from the interior towns to the coast, and, especially from north to south, commenced simultaneously with European emigration.

Of course the increase of the native white population also operated in the same direction, and with the then limited territory of the republic, and the wonderful results of the cotton plant—not even imagined by any one—the negro was rapidly becoming a drug in the labor market, so that not only was further importation prohibited by the Federal Government, but some of the States took steps to get rid of them *altogether;* for, however fanatics may delude themselves, they will some day or other make the discovery, that abolition of slavery, and the total extinction of the negro, is the same thing in fact, whatever may be the difference in form, in all latitudes uncongenial to the negro, and indeed wherever the white population predominates in number. The acquisition of Louisiana by Mr. Jefferson opened an outlet, however, for the negro; for, though some time after its purchase the moderate pressure of northern population did not materially affect the Gulf States, after the close of the great European war, and the emigration of the over-taxed and starving masses fairly set in, filling up the towns of the seaboard as well as the interior in the northern and middle States, the pressure on the black population became so great, that in addition to filling up the more southern of the old slave States, Louisiana also soon acquired a large negro population. This same pressure from emigration as well as the increased native (white) population, further resulted in the acquisition of Florida, and finally Texas; for though short-sighted and deluded fanaticism imagines the latter—indeed—imagines that all these acquisitions of territory originated with slave-holding politicians, merely to add to their political influence, they resulted in fact from an overwhelming necessity, having its cause in the increase of white population, and for its object, or at any rate as its results, the comfort and well-being of the blacks themselves. The slave population of New-York, New-Jersey, Pennsylvania, &c., never large, soon became so useless with the increase of white population, that the legislatures of these States, as well as individual owners of slaves, began to take steps to get rid of them. The young and likely ones were sold, sent further south to Maryland, to Virginia; again these or others sent still further south, while the few remaining old or useless ones, or very young ones, were freed by the legislatures.

Such a thing as the abolition of negro slavery, under the notion that it was a wrong to the negro, probably entered the mind of no one, certainly no one really having any influence, or taking official part in it. Slave labor, or rather negro labor, was simply unprofitable when in contact with white labor; and individual owners and States alike took measures to relieve themselves from a population that was burthensome.

The Jeffersonian "Ordinance," so much talked about and so little understood by those who, misunderstanding the negro, necessarily misunderstand the whole subject, if it had any vitality or practical operation whatever, was essentially the same as the New-York abolition of slavery, or the recent legislation of Indiana which excludes negroes from that State. But in fact it had no practical effect whatever; and instead of keeping "negro slavery" out of the region north of the Ohio, the utmost efforts of the National Government could never have forced it there. When we examine for a moment the laws of population, or those that govern labor, especially when we examine the facts that have invariably attended populations made up of whites and blacks, the truth of this declaration is clear and unmistakable.

With the increase of white population in Western Pennsylvania and Virginia, adventurers and reckless persons pushed on beyond the frontiers, over the mountains, into the valley of the Ohio, and formed settlements in the very heart of the Indian country. Others again, crowded by the constantly increasing pressure behind them, followed; and in a few years settlements of considerable size, not only on the Ohio River, but north of the summit level, were to be found scattered all over the region now known as the State of Ohio. Among these settlers, except, perhaps, an occasional favorite servant carried along by some of the later ones, a negro must have been as rare a thing as a white blackbird. The negro was not only utterly useless when fighting their natural enemies the Indians, but a great incumbrance, indeed a dangerous one to the settlers, now living by the chase quite as much as by regular industry; nor was his services worth much, if indeed anything, to these early adventurers; and, finally, it was a climate, at that time at least, utterly uncongenial to the negro constitution.

Thus, negroes were excluded from this vast region by natural causes that no artificial contrivances, or legislative dictum, or Jeffersonian "ordinances" could control; and if the old "Confederation" which thus, in the ancient spirit of governmental authority, undertook to regulate the destiny of unborn generations, had enacted that all the negroes born after a certain time should have straight hair instead of that which nature provides them with, it would have been just as effectual as their "ordinance" for excluding negro slavery northwest of the Ohio. Several years later, when large settlements and regular industry took the place of small ones, and subsistence by the chase was serious and protracted, efforts were made to introduce negroes; but the natural causes were too powerful to be overcome, till finally the increase of white population ended these efforts altogether, and all the States formed out of the territory adopted (quite needlessly) a clause in their constitutions forever excluding slavery. The recent legislation of some of these States bordering on slave States, excluding negroes, is a very natural consequence of their local position. It is not from any inconvenience that mere "free negroism" imposes upon them, but their proximity constantly exposes them to an influx from runaway slaves; and these accumulating in the frontier towns, have become so burthensome to the whites as to demand the interference of legislation to remove the evil.

The negro is as much a product of the tropics as the orange or the banana, or any other form of existence originally created within those latitudes, and the instinct of his nature prompts, as well as the necessities of the Caucasian race continually urges, him onward to his original and final home. Thus, the negro of Vermont or Canada, with the rights of the superior race artificially conferred upon him, will turn his back upon all these things so instinctive and so cherished by the white man, and voluntarily make his way to southern Ohio, or southern Illinois, where, beyond mere "British liberty,"—that is, the right of moving from one place to another without a passport—he is denied all the substantial rights of liberty.

Vermont and Massachusetts, where all the rights of citizenship are given them, have but a mere handful of negroes. New-York, where these "rights" are curtailed somewhat, but with a more genial climate, has a larger negro population than the former. Pennsylvania, still further curtailing these rights, but possessing a somewhat milder climate, has an increased negro population; till finally Maryland and Virginia, that denies them everything,—that even refuses them "British liberty,"—that holds them in a legal subordination differing, so far as liberty is concerned, but little from actual slavery, have infinitely larger "free" negro populations than those States that *force* upon them all the rights of citizenship.

Perhaps no better illustration of the true nature and instinctive tendencies of the negro can be presented, than the simple fact that, while Vermont who (legally) makes men of them, has only some five hundred in the whole State, Maryland, which denies them all the substantial rights of manhood, has forty thousand.

There is no difficulty in removing from Maryland to Vermont. They are not only at perfect liberty to do so, but in fact are in every possible manner encouraged, to thus escape from "thraldom" into "liberty." Indeed, the States of Maryland and Virginia are at this moment threatening their free negroes that if they will not go to Canada, and Vermont, and Massachusetts, and become "*men*" and "citizens," they will force them to do so by excluding them from these States, or they will again make slaves of them. What a pregnant fact! and yet poor, deluded, and misguided abolitionism sees nothing in it but the "inhumanity" of those States thus threatening the negro with the "manhood" and "citizenship" of Massachusetts.

Every State, like every individual, must be the judge of its own interests, or what is necessary to its own welfare and safety. Virginia, with fifty thousand free negroes, with fifty thousand of a widely separated race on her hands, which *she* knows by actual experience can by no possible means or contrivances be consolidated with her own people, or artificially forced to perform the duties or exercise the rights of citizenship,—Virginia, thus knowing her actual condition, and what is necessary for her own well-being, says to these people, "God has created you different from us; he has for the wisest and most beneficent purposes endowed us with a higher nature, and has attached to this higher nature corresponding duties which *you* are utterly incompetent to perform, and, as your present position is an unnatural one and burthensome to us, you must conform to the condition of your brethren, or leave the State: in a word, our welfare and our safety demand that you shall go to Massachusetts and become a black white man, as the abolitionists say you are, or you must again become a 'chattel,' as they call your brethren."

This question, with perhaps a few exceptions, such as may have a predominating amount of Caucasian blood in their veins, will doubtless be answered in favor of (so called) slavery; for the necessities of physical existence that now prompts the negro to leave Vermont, where he is forced up to an equality with the whites, for Virginia, where he is denied every substantial attribute of freedom, will also prompt him to accept the protection of a master, rather than "freedom" in Vermont.

Fortunately for the negro, the same causes that for sixty years has steadily impelled the race southward, are now more active than ever before; and the time probably is not remote, when the northern tier of slave states will be wholly relieved from a negro population, or at least sufficiently relieved, to venture on abolishing slavery, so called. The fact, to be sure, of a large negro population, like that of Virginia, renders such a contingency out of the question, without first obtaining a southern outlet; but as this is a national necessity, and the greater the prosperity and increased population of the "free" states, the more overwhelming becomes this necessity. It may be assumed that if the natural development of things is not interfered with, that this outlet will be furnished, and these States, relieved of their negro population, will become filled up with a white or Caucasian one.

Superficial, or rather deluded persons, continually mistaking a question of race for that of "slavery," notice that Ohio is more prosperous than Kentucky, and thus jump to the ready, but absurd conclusion, that it is because the former is a free, and the latter a slave state; while the fact itself simply demonstrates the immense superiority of the white race.

Of course, to make the cases parallel, Ohio should have relatively as many free blacks as Kentucky has slaves; then if the former was as prosperous as now, the fact would be decisive against "slavery;" but who will believe if Ohio was to exchange some half million or so of her present industrious and energetic people for two or three hundred thousand free negroes, that she would continue to be more productive, and, therefore, more prosperous than Kentucky, who compels her negroes to labor.

The causes, however, that have gradually, but steadily, forced the black southward, will some day relieve Kentucky of a population already burthensome, when, with her great natural resources fully developed by the superior intelligence of a white population, she will doubtless compete successfully with her more northern sisters.

These causes, as we have remarked, are European emigration and the increase of white population. Thus, ten thousand emigrants arrive in New-York; there is a certain demand in the labor market of that state. The surplus, whether in the persons of these emigrants or of native laborers, enters other markets; and though the West opens an almost illimitable field for white labor, yet a portion of it presses on Kentucky, Maryland, Virginia, and the whole tier of northern slave states; it pays better, not as erroneously supposed slave labor, but better than negro labor, therefore the latter falls back, is pressed southward, and demands new outlets and fresh fields of industry suited to the constitution and wants of this race.

The slave owner, unable to compete with this white population, or white labor perpetually advancing upon him, gathers up his household, emigrates to Alabama, to Florida, to Texas. Others again, impoverished perhaps by his or their slaves, who, however little they may produce must eat, and unable to purchase a plantation in the new states, is compelled to sell; their slaves thus transported to new soil, and into more genial climates, their labour vastly more productive, they receive an infinitely larger share of the proceeds than they possibly could in the old worn-out States; while the latter, filled up with a white population, create new and smiling homes, where previously all was dilapidation and decay.

This movement, always in action, which for sixty years has impelled the black southward, operating as harmoniously as beneficially all round, furnishing new homes and means of subsistence to the myriads of starving emigrants that reach our shores—which opens new fields of enterprise and activity to the native population—which repairs the broken fortunes of the planter, and which, perhaps more than all, benefits the negro, who thus finds himself in a more congenial clime, and with greater productiveness of labor, enjoys a larger share of those physical enjoyments that constitute the substantial happiness of the race. This normal and healthy movement, we repeat, so constant and so necessary to the happiness of innumerable millions of men, is "Slavery Extension"—that imaginary monster conjured up by British writers and northern traitors. To say that "Slavery Extension" is as necessary to the white population of the South as atmospheric air is to a living man, would be only declaring half a truth, for it is still more necessary to the blacks themselves. If Kentucky, for example, was for ever denied any further outlet for her negro population, she would undoubtedly get rid of slavery, not, however, in the way which the "free soiler" vainly imagines, but by the total extinction of the blacks. The increased productiveness (not of "free labor," but of white labor) would soon render slaves unprofitable; and owners, if forbidden by the State constitution to emancipate, would actually run away to escape supporting them, for however little the slave may produce, he must eat.

In New-York, Pennsylvania, &c., where the negro population is a mere handful, certain small channels of employment, such as barbering, boot-blacking, waiting at table, &c., by common consent is given up to the blacks; still they rapidly decline, and were it not for fresh accessions by runaways from the South, would soon become totally extinct. In Kentucky, however, with a large negro population, these restricted means of subsistence would be wholly incompetent, and the physical necessities, the absolute overwhelming pressure of hunger, would impel them to crime, robbery, insurrections, to violence and blood, and certain to end in complete and total destruction. There can be, or there need be, no doubt or uncertainty on this point. At the present moment, when even necessity cannot be pleaded, the laboring-classes of the white population wholly exclude the negro from employment, except in those menial and filthy employments that the whites refuse to embark in. Thus with the abolition of slavery, or rather we should say, with the protection of the master withdrawn from the negro, a large negro population like that of Kentucky would not even be permitted to "die out" gradually like that of New-York; but driven to violence by hunger and physical suffering, it would rapidly fall a victim to the superior intelligence, energy, and numbers of the superior race.

What is true of Kentucky, or would be true of Kentucky in such a case, would be equally true of all the other slave States, even those bordering on the Gulf; for however necessary in the past, and indeed in the present time, that negro labor should be employed in those States, white men can labor in any latitude extra-tropical, and with the implements already made and those now going forward, such as draining swamp-lands, &c., a time will come when even Florida and Louisiana may be cultivated by white labor.

Thus should there be no more "Extension of Slavery," or in other words, no further outlet to the negro population, a time would come when all the blacks within our present boundaries would totally perish; and this time, or the time necessary to work out this inevitable result, may be pretty accurately calculated, by a reference to those facts that are spread out all over those States wherever slavery has been abolished.

The acquisition of more southern territory, and the opening of new outlets for this class of our population, as it is pressed on by European emigration, and the increase of white population, therefore alone saves; and the cry of no more slave States, or no more extension of slavery, is tantamount to no more room for the blacks, and *death to the negro.*

But it will be said by theorists, who insist upon considering the negro a black white man, that admitting the tropics to be the final home of the negro, it does not follow that he must reach there only through the system of domestic slavery. This suppositious objection, however, would not merit a reply; for, starting with false premises, the reasonings, if such they may be called, of these people, is necessarily worthless.

It is an unmistakable historical fact, that no negro nation or tribe has ever of its own selection passed beyond the hunter condition, that primary and transition stage of all other races, and an equally unmistakable fact, that when temporarily jostled out of this condition by other races, it insensibly returns to it when permitted to live out its own life, or in accordance with its inherent and specific tendencies. Without any reference to Africa, where this truth is demonstrated by four thousand years of history, we have only to turn our eyes to Hayti, to Jamaica, to Central America, where the race is permitted to act out its specific tendencies, to convince ourselves of the eternal and illimitable truth, that that which we term "savageism" is the normal condition of the negro race whenever permitted to govern itself.

Thus, while perishing in climates uncongenial to it, or where, in contact with large masses of a superior race, it is no longer protected by the superior intelligence of masters, it as invariably returns to the African standard, where, as in Hayti, Jamaica, &c., it is left with a favorable climate to manifest its specific character, undisturbed by the presence of a superior race. The truth of this is palpably manifest in the greater rapidity with which the negro returns to this condition in Hayti, compared with Jamaica, and in the latter compared with Central America. This total and complete self-control is the only thing needed to manifest the complete African standard, that is, complete savageism, or total inability to pass beyond the hunter state, profession, or social condition.

This is the end or final result of "British philanthropy" in the West Indies. The negro, placed within his original centre of existence, vastly predominating in numbers, released from subordination to the white, and, therefore, no longer imitating the intelligence of the superior race, rapidly returns to the African type; and the total extinction of white blood in these islands is the exact period when will also disappear civilization, christianity, everything inherent and specific with the superior race, to be followed by complete negroism, savageism, or heathenism, as now existing in the heart of Africa.

Three things, then, or three alternatives, can alone solve this mighty negro question, which is, indeed, the greatest question of modern times, and on its solution hangs, in all probability, that of democracy—in truth, the destiny of modern civilization itself.

1st.—"Slavery Extension," or that healthy and normal movement which, for sixty years, has constantly impelled the negro southward, opening to him new and fertile regions, where, in addition to a more genial climate, his labor is more productive, thus giving him a larger supply of material enjoyment, his happiness has been continually advanced, while the planter, retiring from the pressure of debt and the support of unproductive slaves in the old worn out slave States, gives place to the constantly advancing white population, that restore these wasted lands, and thus create new homes for the down-trodden and oppressed masses pouring in on us from Europe, who, of the same race as ourselves, become a portion of that glorious nationality which, already equalling in its material development, is doubtless destined to surpass all others in its moral grandeur. This movement, so beneficent in its results, where the intellect of the superior race is always associated with, and guides the industrial capabilities of the inferior one, is, to be sure, by a perversion of language, called slavery, and slavery extension; but it is in reality, not only the best combination of intellect and physical force, but the best combination of capital and labor that has ever yet been seen in the whole history of mankind.

The whole existence of modern civilization is to a great extent a unit; and the productions of the tropics, the sugar, pimento, coffee, and especially the cotton of the tropics, or of the extra tropical latitudes, are as essential to modern civilization as are schools and colleges. The moral and material are indeed inseparably united, and without a proper regard to the latter, there can be but little advance in the former; thus it is that the single article of cotton is at this moment revolutionizing the world, and doing more to advance democratic ideas and true civilization than all the "universities" of Europe.

Providence itself, in the geographical arrangements of the continent, seems to have pointed out its future destiny. Thus, there is running through the whole equatorial belt a high mountain range, spread out into a table-land, or terra templada, exactly suited to the Caucasian population, and, indeed, uncongenial to the negro, who, occupying the fertile regions of the coast, or terra calienta, yet requires the control and guidance of the superior race, not alone to make his labor productive, but for his own well-being and happiness.

The same is true of the islands of Hayti, Jamaica, Cuba. All of them have sufficient table-land to become the home of a sufficient number of whites to preserve the subordination, and to guide and control the industrial capabilities of the inferior race, and thus work out the greatest good to both, and that universal happiness and well-being that the Creator has designed for all His creatures.

This must be the final result of slavery extension, or of that natural and beneficent movement which, independent of Jeffersonian or Wilmot "Provisos," or the delusions of Free Soilism, has constantly impelled the black population southward, if not forcibly interrupted and perverted by agencies and influences as much at war with nature herself, as hostile to our own welfare and safety.

2d.—The efforts made at various times to limit the extension of slavery, will doubtless be as fruitless in the future as in the past. Should they, however, succeed, and the negro population in all time to come be chained down to its present locality, with no outlet whatever to save it from being crushed to death by the constantly increasing pressure of the white population, then its total estinction within those boundaries is only a question of time. Thus, the deluded fanatic, when blindly and stupidly opposing slavery extension, is not only warring against the higher law, but doing all he can to exterminate the very race that he professes to labor for.

3d.—The danger of interruptions to the national law, that impels the negro southward, is not, however, from "free soilism," or any internal force whatever, but alone from that external combination of hostile agencies, which, under the garb of "philanthropy," European aristocracy has so long and so covertly concealed the most deadly designs against the American democracy. Nothing is more clearly demonstrated than that the negro, relieved from his natural subordination to the superior race, refuses to labor. British policy has already succeeded in thus releasing him in all the islands except Cuba, and at this moment, British diplomacy is in energetic action at Madrid, to complete the last act of its long and steadily, though covertly concealed designs, and thus, as recently declared by Lord Palmerston, make "free negroism" an impassable barrier to any further advance of the Americans.

Cuba thus becomes the hinge or turning point of the future. If British policy prevails in that island; the West Indies abandoned to "free negroism;" the inexhaustible fertility of these islands lost to mankind, and an African barbarism permitted to rear itself in the very bosom of the American continent, then, indeed, will the movement which has gone on for sixty years, and operated so beneficently upon millions of men, come to an end, and with it, too, in all human probability, a violent disruption of those natural relations, which, at the present moment, work out such an immensity of good to both races, and such incalculable benefits to all mankind.

With the overthrow of civilization in these islands, and their total abandonment to savageism, it would be utterly impossible to preserve the subordination of the blacks in the gulf states. Indeed, Cuba would be a volcano of "free negroism," constantly vomiting fire and blood on the neighboring coast; and at any moment British aristocracy, with its stupendous steam marine, could bridge the straits of Florida, and, hurling a hundred thousand infuriated blacks upon the coast, appeal to the hostility of race and the latent brutalism of the negro, and lay in blood and ashes the fairest portion of the confederacy.

Cuba, we repeat, is thus the turning point of the future, and involves a problem mightier than ever yet was solved by human action. Its surrender to "free negroism" is now the open and avowed policy of the British government, and the feeble court of Spain will in vain resist it.

The very next steamer that arrives from Europe, may bring an order to the Spanish officials in that place to take the preliminary steps to release the negro population from its natural subordination to the whites; and if the American government and the American people look on passively and silently, and permit this last act in the programme of British philanthropy to be completed, then will come the crisis, and an issue more terrible than nation ever yet encountered, an issue involving not only the civilization or the barbarism of these islands and Central America, but an issue involving the social and industrial system of the South, indeed the very existence of the southern people.

Art. II.—THE EAST INDIA ISLANDS.

No. I.

SUMATRA AND JAVA.

In the April number of the Review, we sketched rapidly the present condition of China—the most ancient, and, next to Russia, the largest empire of the Old World. Immediately southward of it, between the Pacific and Indian oceans, we find, perhaps, the most important cluster of islands in the world. This cluster, of which Borneo is the centre, is known as North West Oceanica, or the East Indian Archipelago. We propose to sketch as extended a picture of these islands as the pages of the Review will admit, and commence with

SUMATRA.

This island is the most western of the group, and lies between latitude 6° N. and 4° S., and between 96° and 106° E. longitude. The equator divides it into two nearly equal parts. On the N. E. the Straits of Malacca separate it from the Malay peninsula; and on the S. E. the Straits of Sunda separate it from Java. On the east of it, between it and Borneo, is the Sea of Java, and on all other sides the Indian Ocean. Next to Borneo, Sumatra is the largest of the group. Its direction is from N. W. to S. E., and it seems to have been once a prolongation of the Malay peninsula. Indeed, taking a general view of the whole group, with the Malay peninsula and Siam on the north, and Australia on the south, it is not improbable that the whole once formed a projection of the continent of Asia, of which Australia was the southern extremity—thus forming a vast peninsula, symmetrical with Africa and South America.

The shape of Sumatra is that of an irregular oblong figure, about 1,050 miles in length, and with an area of from 120,000 to

128,000 square miles. Various mountain chains run through the island longitudinally, sometimes in parallel ranges, but always nearer the western than the eastern coast. These ranges rise, on the equator, to the height of from 14,000 to 15,000. The eastern half of the island is, in fact, destitute of mountains, and almost wholly low, flat, and intersected by numerous rivers, the principal of which are the Siak, Jawbi, Indragiri, and Palembang; but as yet they have been little explored. The west side of the island is also well watered by small streams, the principal of which is the Sinkuang; and in the interior are numerous small lakes, of which Lake Tubah, in the centre of the island, is the largest.

The size of Sumatra, according to some authorities, is much greater than that we have given above, it being estimated at more than 160,000 square miles, or more than 40,000 square miles greater than the whole of the British Isles, and 60,000 square miles greater than the whole of the West India Islands. Taking the British estimate of 160,000 square miles as correct, the area of Sumatra is about 100,000 square miles greater than the whole of New-England, and 23,000 square miles greater than the States of Ohio, New-York, and Pennsylvania.

The coasts of the island afford many good harbors; that of Japanooly being so large and spacious, and possessing so many advantages, that it is considered as hardly surpassed by any harbor on the globe. It is said that all the navies in the world might ride in it, with perfect security, in all weathers.

There are several active volcanoes in the island. That of Gunong Dompo is 12,000 feet high, and its three peaks are constantly enveloped in smoke. There is another, of moderate elevation, about thirty miles east of Bencoolen, which broke out about 100 years ago. That of Beropi, further north, is 13,195 feet high, and that of Sinkolong, 12,468 feet above the level of the sea. There is also Passaman, an extinct volcano, 13,850 feet high; and in the north part of the island is the volcano called Batagapit.

HISTORY.—The ancient history of Sumatra is very obscure. It is generally supposed that the Taprobone of Pliny is the same as Ceylon; but any one who will take the trouble of reading what Pliny says on Taprobone,* will readily perceive that the description answers as well for Sumatra as Ceylon, and indeed better. Ceylon is a smaller island than that called Taprobone by Pliny; and, in many other respects, Sumatra answers better to the description of Taprobone than Ceylon.

Sumatra was first visited by the Portuguese in 1509; by the

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* Historiarum Mundi, lib. vi. c. xxiv.

Dutch in 1600; and by the English in 1602. During the 17th century the English continued to establish factories and settlements in different parts of the island, principally in 1685–6, which they retained till 1825, when they ceded them to the Dutch in exchange for Malacca.

The name of Sumatra first occurs in the travels of Nicolo di Conti, who visited it about forty-three years before the discovery of America. Marco Polo notices it under the name of Java Minor. It is not known whence the name Sumatra is derived—a name quite unknown to the natives. The Malays call the island Pulo Percha.

According to the oldest historical accounts, the whole island of Sumatra formed the ancient kingdom of Menangeaban, which, however, was dismembered before the first arrival of Europeans, the northern part of the island forming the kingdom of Acheen, which was ruled by a powerful king, who resisted all attempts of Europeans to settle on the island. The Portuguese suffered much from his fleets. Internal wars among the natives broke out soon after the first arrival of the Portuguese, and much facilitated the establishment of settlements and factories. In 1811 the English took, by force of arms, Java, and all the Dutch possessions in Sumatra, and afterwards increased their possessions in the island by making war upon the natives. By the treaty of 1824, the Dutch acquired all the British possessions in Sumatra. In 1835 they made further extensive accessions to their already large territory in the island, in consequence of the wars carried on by the Podries against the petty chiefs. The Podries were a sect of Mahommedans, whose chief was Hadjee Miseken. He first appeared in the island in about the year 1800. His tenets were good. He recommended the suppression of all those vices which led to ruinous consequences, such as gambling, smoking opium, and drinking intoxicating liquors, to which vices he attributed the commission of murders, thefts, robbery, fraud, and the depraved state of society. For about fifteen years he propagated his doctrines by moral suasion; but not being satisfied with the progress made in this way, they formed, in 1816, a society for the purpose of compelling the inhabitants to conform to their doctrines. This immediately created open wars and bloodshed, which devastated the country for many years, the fanatical Podries being mostly victorious, especially under the chieftain Tooaka Passumman, who conquered a large extent of country. He was very cruel to the vanquished. Unable to hold out against him, the unsubdued chiefs applied to the Dutch for aid. The result was, that in about two years the Dutch put an end to the war, and took possession for themselves of the whole country of Menangeaban, which, together with their other possessions in the island, forms an extensive Dutch empire in Sumatra.*

CLIMATE.—Situated directly on the equator, still the climate of Sumatra, even in the low lands, is not so hot as might be expected. The thermometer at mid-day generally fluctuates between 82° and 85° Fahr., though it sometimes rises to 87° or 88°. At sunrise it is usually down to 70°. Dense fogs, thunder-storms, and water-spouts, are very frequent off the coasts.

AGRICULTURAL PRODUCTS.—The island is covered with dense forests, and the soil is rich. Among the vegetable products the most important is *pepper*, the average produce of which is about 30,000,000 of pounds annually. The western coast, the part best known to foreigners, furnished, in 1842, 21,000,000 of lbs., and the eastern, 9,000,000. The isle of Sumatra furnishes more pepper than all the other countries in the world. This great trade in pepper is chiefly in the hands of the English, Dutch and Americans. In 1796 the English introduced into the island the cultivation of the nutmeg and clove, at Bencoolen; and in 1825 the nutmeg crop amounted to 89,000 lbs., the clove to 34,000,—with 22,000 lbs. of mace. The quality, however, of these articles was inferior, and since, their production has remained stationary.

Camphor is one of the most valuable products of the island, it being considered by the Chinese twelve times more valuable than that of Japan. It is the concrete juice of the *Dryobalanops Camphora*, and a tree of the order *Guttiferæ*, whereas the Japan camphor is derived from a species of laurel. The camphor tree of Sumatra grows to a large size, its trunk measuring sometimes from six to seven feet in diameter. It grows only in the north part of Sumatra, never south of the equator, nor farther north of it than 3°. The same tree produces, under different circumstances, not only camphor, but oil or pitch, lodged in cavities in different parts. The mode of finding camphor is by cutting into the tree with an axe in different places until it is discovered. Hundreds of trees are thus cut into often, before camphor is found. When discovered, the tree containing it is cut into short pieces, and split open. The camphor is found in the heart of the tree, occupying a space of the thickness of a man's arm. A middle sized tree yields about eleven lbs.; a large one double that amount.†

Rice is the principal grain, and is of two kinds, the upland and lowland. It ripens in about five months from the time it is sown, and yields from one hundred to one hundred and forty-fold. The mode of separating the grain from the ear, is that of treading it out with the feet. The Sumatra rice is of a more perishable nature than that of most countries, the upland not being able to be kept longer than twelve months, and the lowland only six.

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* Marsden's Sumatra. Crawfurd's History of the Indian Archipelago. Anderson's Sumatra.

† Asiatic Researches, XII.

The other vegetable products are *sago*, which is common, and used, though not universally, as an article of food; *millet* also, but in no great quantity. The cocoa-nut, betel, bamboo, sugarcane, various palms, and an abundance of tropical fruits, are indigenous. The sugar cane is cultivated not for the manufacture of sugar, but for the sake of chewing the juicy reed; and hemp, instead of being employed for the manufacture of cordage, furnishes an intoxicating preparation. Among the other principal products are turmeric, ginger, cassia, indigo, coffee, caoutchouc, rattans, many kinds of scented woods, and in the north part, benzoin. The island abounds in the finest kinds of timber for building.

ANIMALS.—The most important in the island are the buffaloes. The ox does not thrive. The horses are small, but hardy; the sheep are also small. Goats and hogs are found, both domestic and wild. Elephants and many species of deer abound; also tigers of a large and powerful species, and the rhinoceros, hippopotamus, ourang-outang, bears, and a great variety of other animals. Elephants, which are very numerous, are hunted for their tusks and skins; they have not been domesticated. Both the single and double-horned rhinoceros are common. Among the various kinds of deer in the island, is found the remarkable diminutive species called by Buffon, *chevrotin*, whose extreme length is only sixteen inches, and the height, ten behind and eight at the shoulders. Monkeys are innumerable. Cameleons and flying lizards are frequent. The sloth is common. Snakes are very numerous, among them the boa monster. Among the great variety of shell-fish is the gigantic keema (*chama*), more than three feet in its longest diameter, and two feet across. The shell is perfectly white, several inches thick. No part of the ocean is so abundant in fish as that which surrounds the Indian Archipelago.

The wild birds are the Sumatra pheasant, remarkable for its beauty; kites, crows, jackdaws, and many of the birds common to the temperate zones. There are also parrots, and a very large species of domestic fowl. The island swarms with insects, and the variety of ants is astonishing. Bees are very abundant, and the silk-worm is reared in many places.

EXPORTS AND IMPORTS.—Around the shores of the island coral reefs are constantly forming, and coral is one of the principal articles of export; the other exports are pepper, rice, camphor, nutmegs, cloves, and other native products. The imports are chiefly India piece goods, salt, silks, and opium from

Hindostan; coarse porcelain, iron pans, gold thread, and many small articles from China; also striped cottons, spices, krises and other weapons from Java, Celebes, and the rest of the Archipelago. From Europe the imports are metals, hardware, cutlery and broadcloths.

MINERAL PRODUCTS.—These are chiefly gold dust, copper, iron, tin, arsenic, sulphur, saltpetre, coal, and naphtha. Gold dust is very abundant and an article of considerable traffic. It is brought by merchants from the interior to the sea-coast, where it is bartered for iron and other foreign products. Sulphur is found in the numerous volcanic districts. The coal is of different qualities. The copper ore is very rich, but owing to the indolence of the inhabitants, the mines are little wrought, except over a limited district. The geology of the island is very imperfectly understood.

POPULATION.—The population of Sumatra is not accurately known, but it has been estimated at about 2,000,000.* According to native traditions, Sumatra and the adjacent islands, are the original seat of the Malay race. It is doubtful, however, whether they should be claimed as a distinct race. Cuvier asks: "Can they be clearly distinguished from their neighbors on both sides, the Caucasian Indians and the Mongolian Chinese?"

Except the Achinese, inhabiting the northern extremity of the island, who are clearly distinguished from the rest of the population by their commixture with the Moors of Western India, the Sumatrans are described by Marsden as follows: "They are rather below the middle stature; their bulk is in proportion; their limbs are for the most part slight, but well shaped, and particularly small at the wrist and ancles. Upon the whole they are gracefully formed, and I scarcely recollect ever to have seen one deformed person among them. The women, however, have the preposterous custom of flattening the noses and compressing the heads of children newly born, while the skull is yet cartilaginous. They likewise pull out the ears of infants to make them stand at an angle from the head. Their eyes are uniformly dark and clear, and among some, especially the southern women, bear a strong resemblance to those of the Chinese. Their hair is strong, and of a shining black, the improvement of both of which qualities it probably owes, in a great measure, to the early and constant use of cocoa-nut oil. The men are beardless, and have chins so remarkably smooth, that were it not for the priests displaying a little tuft, we should be apt to conclude that nature had refused them this token of manhood. But the boys, as they approach to the age of puberty, rub their chins, upper lips, &c., with quick lime, and the few hairs which afterwards appear, are plucked out from time to time with tweezers which they always carry about them for that purpose. Their complexion is properly yellow, wanting the red tinge that constitutes a tawny or copper color. They are in general lighter than the half breed of the rest of India; those of the superior class, and particularly their women of rank, approaching to a great degree of fairness."* No negro, or other distinct race, according to the same author, appears to occupy the mountain regions, as in other parts of the East Indian Archipelago; and the personal difference between the Malays of the coast and the country inhabitants is so little marked, that it requires some experience to distinguish the two.

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* Some writers think that 4,000,000 is "much too low" an estimate.

The original clothing of the natives is made of a fabric manufactured from the inner bark of a tree, beaten out to the degree of fineness required, some of the fabrics being nearly as soft as the most delicate kid-skin. The dress of the men consists of a pair of short drawers, a close waistcoat with filigree buttons, a robe extending to the knee, a party colored scarf, a sash in which the kris or dagger is stuck, and a small turban, or umbrella hat. That of the women consists of a boddice, a petticoat reaching from the bosom to the feet, a robe with sleeves, and sometimes a gauze veil, &c., with various filigree ornaments. Both sexes file, blacken, and otherwise disfigure their teeth; and the great men sometimes set theirs in gold, by casing the under row with a plate of that metal.

The villages are always on the banks of some river or lake, and consist of houses built chiefly of bamboo, and on posts, as in other countries of south-eastern Asia. They are, however, much superior to those of many other ultra-Gangelic nations. Their furniture is very simple, the best of which consists chiefly of mats of a fine texture serving for beds, some low tables, coarse earthenware, brass waiters, and iron pans. In eating, the Sumatrans use neither knives, forks, spoons, nor any other substitute except the fingers. Their diet is mostly vegetable, but they eat the flesh of buffaloes, goats, fowls, &c.

In some manufactures the Sumatrans show great skill, as in working gold and silver filigree, which is done with the rudest tools. They blow the fire of their furnaces with their mouths through a joint of bamboo, bellows not being used. If a very strong blast is required, three or four persons sit around the furnace, which is generally an old broken iron pot, and all blow together, each with his separate bamboo. They are ignorant of labor-saving machines.† Still, with all their rudeness of tools, the manufactured material is celebrated for its delicacy and beauty throughout the world. They weave silk and cotton fabrics for their own consumption, some of which are very fine, and of elegant patterns. They also manufacture pottery, daggers, and fire-arms. Cannons, it is said, were formerly cast at Achin, in the north part of the island; but in the working of iron they exhibit little skill.

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* Marsden's "Sumatra," pp. 44-46. † Ibid., p. 179.

The Sumatrans are ignorant of painting and drawing, and their carvings are always grotesque. Of the exact sciences they know but little. They are fond of music, and have many musical instruments, mostly borrowed from the Chinese, whose ideas of music are as rude as their musical instruments. The poetry of the Sumatrans is said to be far from contemptible, its harmony being much improved by the smoothness and sweetness of the Malay language, which has gained the appellation of the Italian of the east. They write in the Arabic character. Medicine, among them, is in the lowest possible state, it being entrusted to old people, who depend chiefly on charms and talismans for the cure of diseases.

A large proportion of the inhabitants of Sumatra are Mahommedans. The Rejangs, however, who occupy the south-west part of the island, are said to be totally without religious worship of any kind, though not destitute of a belief in the existence of supernatural beings.

Marsden relates that there are, in the interior of Sumatra, two different races of men, living in the woods, and avoiding all communication with the other inhabitants. The one is called Orang-Kuba, and the other Orang-Gugu. They speak a peculiar language. The bodies of the Gugu are said to be covered with long hair, so that they resemble the orang-outang. There is also another race mentioned, occupying the mountains near Samangka bay, called Orang-Abung. Nothing is known of them, except that, according to their custom, no man can marry till he has brought to his chief the head of a stranger. The word *orang* signifies *man*, in the Malay language. These three races, named above, are considered by some as the aborigines.

The other inhabitants of the island are divided into five nations: the Achinese, Battas, Malays, Sumatrans, and Lampongs. The Achinese use the Malay character in writing, and are probably the most intelligent. They are Mahommedans. The Battas are heathens. They have a language and written character peculiar to themselves, and it is remarkable, that those among them who can read and write, are much more numerous than those who cannot; and still more, that a nation, who in this respect, and in their agriculture, dress and manners, show that they have made great progress in civilization, should be fond of human flesh, and eat prisoners taken in war, and criminals condemned to death. Horse-flesh, also, they regard as the most exquisite meat, and for this purpose they fatten horses with great care. The Battas are fairer than the Malays, but of smaller stature.

The Lampongs, occupying the southern part of the island, strongly resemble in appearance the Chinese, particularly in the roundness of the face and the form of the eyes. They are the fairest people in the island, and the women are the tallest and handsomest; otherwise they do not differ from the Sumatrans except in language. They have a written character peculiar to themselves. They are Mahommedans, most of their villages having mosques.

GOVERNMENT.—Sumatra is divided among a number of native states, the principal being Menankabowe, Achin, Siak, Palembang, and Lampong. On the south-west coast are the settlements of the Europeans, adjacent to the Rejangs. Bencoolen and Padang are the chief European settlements. Over the inhabitants of each village there preside magistrates named *Dupatis*, who meet at stated periods and places in an assembly, over which presides a feudal superior, called *Pangeran.* These Pangerans claim despotic sway; but like the Dupatis, have, in fact, little more than patriarchal and judicial power. They levy no tax, nor seem to have any revenue other than the fees arising from the determination of cases referred to them, in appeal from the decisions of the *Dupatis.* In the immediate neighborhood of the more powerful states, the Pangerans seem to acknowledge a kind of vassalage to the sovereigns of the latter. Some portions of the island are either immediately subject to the Dutch, or governed by princes dependent on them.

JAVA.

This island belongs principally to the Dutch, and is their most valuable possession in the East. It lies between the 6th and 9th degrees of S. lat., and the 105th and 115th of E. long., and separated from Sumatra by the straits of Sunda, on the W.; from the isle of Bali by the strait of that name on the E.; and has the Indian ocean on the S., and the sea of Java on the N, separating it from Borneo. The island is about 600 miles long, from W. to E., and with a breadth varying from 40 to 130 miles. The area, including the neighboring island of Madura, is estimated at 45,700 square miles, or about one-third the size of Sumatra. Most part of the surface is mountainous. A mountain chain, of volcanic origin, runs entirely through the centre of the island, from W. to E., its peaks varying from 5,000 to 12,000 feet in height. All the peaks are of a conical form, and appear to have been created by so many distinct convulsions of nature. All of them were once active volcanoes; in most of them, however, volcanic action appears to be extinct, but in some of them eruptions occasionally take place, emitting sulphurous vapors, especially after a rain. Basalt, hornblende, and other volcanic formations are abundantly intermixed among the primary rocks of the mountain region. On either side of the mountain chain coarse limestone and argillaceous iron stone are very prevalent formations, and are covered, especially in the lower parts of the country, with volcanic soil of great richness, in some places twelve feet in depth. The north coast rests entirely upon coral. Metals are few. Mineral springs of various kinds are met with, besides naphtha and petroleon wells. In one district there is a cluster of hills which eject a mixture of mud and salt water, like the mud volcano of *Maccaluba* in Sicily.

The south coast of the island is usually bold and rocky; and being exposed to all the violence of the ocean, is very unsafe for shipping. The north coast is low and marshy, affording many good harbors, the sea being generally smooth. The rivers are numerous but small. The largest is Solo, which runs through the centre of the island, emptying into the Sea of Java, opposite the isle of Madura. It is 400 miles long, and is navigable seven-eighths of that distance for vessels of 200 tons. Five or six other rivers are at all times navigable for a few miles from the coast, and some fifty others are navigable in the wet season. There are many extensive swamps, and in the mountains many small lakes occupy the craters of extinct volcanoes.

CLIMATE.—The seasons are divided into the wet and dry. The wet continues during the monsoon, from October to April; the dry during the east monsoon, or the rest of the year. The climate of the north coast is unfavorable to Europeans, the thermometer rising sometimes to 90° Fahr., but in the interior, where the range of the thermometer is from 50° to 60°, it is healthy. Thunder-storms and earthquakes are frequent, but hurricanes are unknown.

VEGETABLE PRODUCTS.—Java is distinguished by the number and excellence of its fruits, and its most luxuriant vegetation. Its vegetable products comprise many of the most valuable and common of tropical climes. Dense forests of teak and other trees useful for ship-building cover a great part of the interior, especially the east part of the island; but the teak of Java is inferior, in hardness and solidity, to that of Malabar, but excels every other variety in durability. The sago and many other palms, the curious pitcher plant, and two virulent poisonous plants, the *anchar* and *chetik*, are natives of the island. The latter, which is peculiar to Java, is a large creeping shrub, and supposed by some to be identical with the celebrated *upas*, formerly said to be, like the famous lake in Campania, Avernus, destructive of birds flying over it. The *upas* is merely a tree with poisonous secretions, and nothing more. There is nothing deleterious in its atmosphere. It is an *urticaceous* plant, called *Antiaris toxicaria* and is very nearly related to the fig, some of whose species are also deadly poisons. The upas tree of Java owes its celebrity to the gross falsehoods and exaggerated accounts published regarding it, in 1780, by a person of the name of Foersch, said to have been a surgeon in the service of the Dutch East India Company. He related that malefactors, condemned to death in Java, were offered their lives if they would go to the upas tree and bring from it a box of its poisonous juice; and that although every precaution was taken to avoid the deadly emanations of the tree, out of seven hundred criminals who had tried the experiment, not more than two out of twenty returned. Foersch further relates, that for fifteen or eighteen miles around this tree no living animal of any kind had ever been discovered. Dr. Horsefield,* M. Leschinault,† and many others, have completely exposed these falsehoods. There is some difference of opinion, still, in regard to the *upas*, some saying that it is one of the largest forest-trees of Java, from sixty to one hundred feet high. This is correct. The shrub *chetik* is already distinguished by Pereira, who says it must not be confounded with the *Antiaris toxicaria*, the true upas tree of Java.‡

Rice is grown in all parts of the island, and is the principal food of all classes. Two varieties are raised, one a large, productive, but delicate kind, requiring seven months to ripen, and the other small, hardy, and less fruitful, requiring about five months. Six crops of the latter have been raised in two and a half years.

Coffee, the great commercial staple of Java, is grown in the uplands, the best situations for it being the valleys, from 3,000 to 4,000 feet above the level of the sea. The plant grows from 12 to 16 feet high, coming to maturity in about five years, and bearing well for ten or twelve years.

Sugar is also a staple production of Java. The Java sugar is called, in European markets, Jaccatra sugar. It is cultivated chiefly by the Europeans and Chinese in Java, the latter being the principal producers. The natives use a great deal of sugar obtained by fermenting the juice of a certain tree. The progress of sugar cultivation in Java has been very rapid. In 1837 the quantity exported was twenty-five times greater than that of 1826. In 1843 Java exported 48,000 tons.

The other vegetable products are indigo, pepper, cinnamon, tobacco, cotton, maize, wheat, rye, oats, barley, pulses of various kinds, vegetable oils, the sweet potatoe, cocoa, betal leaf, connella bark, pistachio nuts, and silk. The cultivation of the poppy is forbidden.

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* Quart. Jour., vol. 2, p. 331.

† Ann. du Mus. d'Hist. Nat. t. 16, p. 476.

‡ Pereira, Mat. Med., Vol. ii, p. 373.

The climate and soil of Java are so favourable to agriculture, that if the whole island were under cultivation, no equal extent of area of land on the globe could surpass it, either in the quantity, quality, or value of its vegetable products.* Only about one-third part of the surface is at present under cultivation, and yet Java not only produces enough corn for its own consumption, but it is the granary of the Eastern Archipelago and of Singapore.

The Javanese are emphatically an agricultural people, four out of five being engaged in it, and their husbandry exhibits great order and neatness. Two or more crops are never cultivated in the same field, and there is no tilling up the land in common; but each family has its separate fields. Both men and women engage in the work. Their implements are few and simple, and more perfect than those of the Hindoos. A pair of buffaloes draw the plow.

ANIMALS.—Cattle of every description are abundant; but the cows are inferior. Sheep, goats, and hogs are numerous. The aggregate number of mammalia, in the island, is estimated at fifty. The wild animals are the royal and black tigers, the rhinoceros, several kinds of deer, the wild hog, wild Savan ox, buffalo, &c. Crocodiles and other large reptiles infest the rivers and marshes, and upwards of twenty venomous serpents are enumerated, including some of enormous size.

Birds are in immense variety, of which the most remarkable is the bird of paradise. The sea swallow, (*Hirundo esculenta*) affords the edible nests which form so valuable an article of trade for the markets of China. This singular product is obtained in the greatest perfection from deep, damp, and all but inaccessible caves along the rugged parts of the sea-coast. These caves are the property of government, and produce a considerable revenue. Mr. Crawfurd, who superintended for several years the caves of Karang-bolang, on the south coast of the island, estimates the value of the nests obtained from them at about $140,000 per annum, collected at an expense of about eleven per cent. The nests are taken twice a year. The nests are assorted into three qualities, the best being the whitest, or those taken away before being soiled by the young birds. The supply of nests being limited and unsusceptible of increase, and at the same time being highly prized by the rich and luxurious Chinese, on account of their real or supposed invigorating powers, they bring enormous prices. The finest sorts sell at from £5 to £6 per pound! and the inferior for 24*s*. or 25*s*. per lb. They are found in other parts of the Archipelago, but in smaller quantities. Their total export to China is estimated at from 240,000 to 245,000 pounds.*

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*Raffle's Hist. of Java, vol. i, p. 117.

TRADE OF JAVA.—Five-sevenths of all the external trade of Java is carried on with Holland, through the Dutch Commercial Society, which include some of the most wealthy persons of Holland. The island is extremely well adapted for an extensive commerce, its products being extremely rich and abundant, and its northern shores accessible to vessels all the year round, lying opposite the richest countries of Asia. Besides this, the Dutch government has made it the centre of all the trade which Holland carries on with its extensive settlements in the Indian Archipelago. All the goods destined for consumption in the Moluccas, Celebes, Borneo, and the eastern coast of Sumatra, are sent to Batavia, the great commercial emporium of the Dutch East Indies, and distributed thence to the places of consumption. The exports, too, of these countries, intended for the European and American market, are likewise sent to Java, and thence to Europe. The trade of the island was always open to the independent Asiatic nations, and since its re-occupation by the Dutch, that is, since 1816, the vessels of all European nations have been admitted into the ports of Batavia, Samarang, and Surabaya, all on the north side of the island, the first in the west, the second in the middle, and the third near the east end.

The Dutch and other Europeans, and the North Americans, export from Java chiefly coffee, sugar, rice, pepper, and arrack, a spirituous liquor obtained by distilling the fermented produce of rice. The minor articles exported are, long pepper, cubeb pepper, ginger, turmeric, cajeput oil, tamarinds from Madura, Sapan dye-wood, rattans, and the hides and horns of buffaloes and oxen; also vessels built of teak, and teak timber. The *imports* are cotton fabrics, especially chintzes, white cottons, handkerchiefs, and velvets; woollen broadcloths, iron, unwrought, Swedish and British, Swedish steel, cutlery, nails, anchors, wrought copper, unwrought from Japan, fire-arms, ammunition, glass-ware, earthen ware, and opium.

The Chinese trade extensively with Java, chiefly at Batavia and Samarang. Their imports are black tea, coarse porcelain, wrought iron, principally in the form of pans for sugar-houses, and other culinary vessels, cotton cloth, raw and unwrought silk, especially satins of various colors, and velvets, brocades, brass-ware, paper, books, paints, shoes, fans, umbrellas and toys; carrying away in exchange the products of the island, and European cottons and woolens.

The inhabitants of the other islands of the Indian Archipelago carry on an active commerce with Java, by means of the Bugis, or inhabitants of Boni, in Celebes. These active navigators and adventurers leave their country in the beginning of the eastern monsoon, and carry on a trading voyage, as they proceed westward, until they reach the limit of their navigation at Malacca, Penang, and Achin, where they prepare to return with the change of the monsoon. They bring with them to Java, from the other islands, gold-dust, nutmegs, Spanish dollars, camphor, frankincense, and tortoise-shells; carrying away European goods, iron, salt, &c.

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* Crawfurd's Indian Archipelago, vol. iii.

The inhabitants of Coromandel and Malabar trade with Java, carrying thither the products of Hindostan. A few vessels also visit Java, annually, from Mocha, in Arabia, carrying the goods of Hindostan, and bullion.

The following table, from the London *Economist*, exhibits the exports of Java to all countries, from 1836 to 1845, inclusive:

ARTICLES.	1836.	1837.	1838.	1839.	1840.
Coffee, piculs*	498,077	684,947	59,000	757,476	1,132,124
Sugar "	509,513	676,085	735,000	871,747	1,024,493
Rice "	1,092,900	1,003,550	950,000	1,112,000	680,909
Indigo, lbs	407,100	822,492	743,000	1,196,636	2,123,911
Tin, piculs	47,739	44,457	14,513	47,631	62,334
Rattans, "	49,968	33,539	35,360	40,068	28,032
Pepper "	7,076	14,487	8,577	11,034	9,911
Hides, pieces	129,000	93,000	71,000	130,000	110,494
Arrack, pipes	4,477	1,603	2,954	4,261	5,261
Nutmegs, piculs	3,886	5,022	5,830	5,026	3,600
Mace "	990	1.213	1,500	1,580	870
Cloves "	2,185	2,925	2,912	4,334	53
Tea, lbs	—	—	—	—	—
Cochineal "	—	—	—	—	—
Sapan wood, piculs	—	—	—	—	—

* The Javan *picul* is 136 pounds, Avoirdupois.

ARTICLES.	1841.	1842.	1843.	1844.	1845.
Coffee, piculs	961,466	1,013,854	1,018,102	1,239,935	1,005,750
Sugar "	1,046,578	884,685	929,769	1,008,632	1,450,000
Rice "	676,212	884,157	1,008,774	785,276	447,450
Indigo, lbs	1,827,386	1,627,437	1,890,129	1,648,520	1,653,700
Tin, piculs	48,339	69,127	45,705	68,729	74,400
Rattans "	37,017	36,594	73,535	73,600	50,625
Pepper "	13,245	10,441	23,083	12,484	11,445
Hides, pieces	120,074	167,677	150,310	156,224	115,780
Arrack, pipes	4,670	4,668	6,362	6,258	4,858
Nutmegs, piculs	5,125	5,129	2,113	8,131	3,425
Mace "	1,171	1,432	486	2,300	826
Cloves "	7,600	1,718	2,027	2,800	2,235
Tea, lbs	—	—	—	—	445,000
Cochineal "	—	—	—	—	82,420
Sapan wood, piculs	—	—	—	—	5,650

The amount of tea, cochineal, and sapan wood, exported from 1836 to 1844, is unknown.

The following table brings the official returns of the principal exports of Java, in florins, down to 1847, inclusive.

	1846.	1847.
Rice, florins	3,002,000	3,243,000
Coffee	15,586,000	17,642,000
Sugar	18,123,000	18,444,000
Indigo	4,379,000	4,444,000
Tin	3,531,000	3,072,000
Tobacco	2,140,000	1,980,000

The entire exports for 1845, 1846, and 1847, were estimated as follows:

1845	68,083,000	florins.
1846	60,157,300	"
1847	60,216,700	"

The import trade of Java, according to the official statements, including specie and merchandise, for 1845, 1846, and 1847, inclusive, was as follows:

1845	73,221,956	florins.
1846	36,120,685	"
1847	29,435,402	"

which exhibits a very notable decrease.

The official documents of the United States afford no means of ascertaining the amount of our trade with any one of the Dutch East India islands exclusively, since the returns only exhibit the trade of our country with the entire group as a whole; but since Java is the centre of the foreign trade of the Dutch East India islands, we may consider the returns as indicating our trade with that island. The following table, which we have compiled from the official returns of our government, shows the amount of our trade with the Dutch East Indies since 1844:

	Imports.	Exports.
1844	$935,984	$359,383
1845	538,608	201,158
1846	480,353	83,542
1847	839,982	200,140
1848	249,346	241,859
1849	354,528	334,941
1850	444,404	443,485
1851	410,148	247,570
1852	(Will appear in next No.)	

Our coffee trade with Java, during the last eighteen years, has been as follows:

1834	5,307,186	pounds
1835	4,728,890	"
1836	8,850,658	"
1837	1,779,819	"
1838	2,423,277	"
1839	5,628,348	"
1840	4,343,254	"
1841	6,794,702	"
1842	9,781,418	"
1843	1,638,307	"
1844	8,740,841	pounds.
1845	3,925,716	"
1846	2,819,411	"
1847	17,819,345	"
1848	3,037,377	"
1849	4,208,078	"
1850	5,146,961	"
1851	2,423,968	"
1852	(Will appear in next No.)	

MANUFACTURES.—The Javanese, and Indian islanders in general, are wholly unacquainted with the art of manufacturing fine fabrics of any description. All their fabrics are coarse, though durable, and their weaving is performed by women only. Calico printing is unknown to the Javanese, but they have a very singular substitute for it. The part not intended to be colored they daub over with melted wax; and the cloth thus prepared is thrown into the dying vat, the interstices between the waxed parts alone receiving the colour of the pattern. If a second or third colour is to be added, the same operation is repeated on the ground made by the first application of wax, more wax being applied so as to leave new figures exposed to the dye; and the cloth is again consigned to the vat. This extremely rude mode of making calicoes and other figured fabrics, does not admit of designs very refined and elaborate, the danger of failure being in proportion to the delicacy of the designs; it moreover, adds immensely to the costliness of the fabrics—at least 100 per cent., while the price of Javanese fabrics without colors is about 450 per cent. on the price of the raw material. "This," says Mr. Crawfurd, "is a picture of the rude condition of manufacturing industry, of the waste of labor and of time which results, in an uncivilized stage of society, from imperfect machinery, indolence, unskilfulness, and the want of the division of labor."* Javanese manufacturing industry, however, is far in advance of that of the other islands of the group. The other manufactures of Java are leather and saddlery, boots and shoes, mats, bamboo hats, coir or cordage, made of the fibres of the cocoa-nut, fishing nets, paper made of the bark of the *morus papyrifera*, brick, cabinet work, carved wooden articles, boats and ships, krises, match-locks, and other arms, copper and brass pans, salt, &c., &c. About 32,000 tons of salt are annually made. Manufactures in Java have greatly declined.

In architecture the Javanese also surpass the other islanders. Some of their structures of brick and stone are in a style of superior magnificence; for instance, the temple of Budar; and these magnificent structures are found in various parts of the island. The art of building has declined in Java, since the middle of the 13th century, and the modern Javanese do not even understand the art of turning an arch, though arches are seen in every ancient structure in Java. The palaces of the native princes are walled inclosures, laid out on a uniform plan, and comprising several buildings. They were formerly of hewn stone, but at present they are only of bad half-burned bricks and mortar. Next to the palaces are the better sort of residences called *pandapas*, a word from the Sanscrit. These consist of a thatched roof, supported by four wooden pillars, around which is an awning of light materials, supported by props of movable bamboo; and the whole is closed in by a temporary paling, and divided into apartments by light partitions. The houses of the Javanese are chiefly of bamboo, rattan, palmetto leaves, and wild grass. In the dwellings of the chiefs there is generally, in a conspicuous part of the house, a kind of state bed, rather for display than use; but an ordinary bed is usually only the bamboo floor, or at best a bench with a mat and pillow, on which the peasant retires to rest without undressing. Food is served up on trays of wood or brass. A few Chinese porcelain dishes are occasionally used, but neither spoons, knives, or forks.

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* Crawfurd's Indian Archipelago, vol. ii., pp. 179-180.

POPULATION.—The population of Java is estimated at between 5,000,000 and 6,000,000, of whom about 100,000 are Chinese, several thousand Europeans, mostly Dutch, and the rest Malays, natives of Bali and the other isles of the group, and a few Arabs, Moors, and Bengalese. The natives of Java belong to the widely spread race of the Malays. They are short, thick set, and robust, but well formed; face round, mouth wide, teeth remarkably fine, chin square, cheek-bones high; nose short and small, never prominent or flat; eyes small and always black; hair long, lank, harsh and always black. The complexion is generally brown, and darker than in the neighboring islands. They have very little beard. Mahommedanism, much modified by Buddhism, is the religion of the natives. Three different dialects of the Malay language are spoken in the island, but they have also an ancient sacred language called Kawi, containing a great number of Sanscrit words. The native literature is not rich. They have books, translations from the Sanscrit and Arabic, chiefly on religion and jurisprudence.

The Javanese, as a nation, are the most advanced of any in the East Indian Archipelago. They alone of the inhabitants of the whole group have a native calendar, and have made considerable progress in the arts and sciences. They appear to have received these originally from Hindostan, together with the Hindoo religion, which is supposed to have prevailed over Java till its conquest by the Mahommedans, in 1478.

GOVERNMENT.—Java is divided into twenty provinces, including that of the isle of Madura, each governed by a European resident, assisted by a secretary and as many sub-residents as are necessary. The provinces are subdivided into regencies, the administration of which, especially in respect to the police, is confined to native chiefs, termed regents. The colonial government, at Batavia, exerts a full and complete power over all the Dutch colonies in the East. The governor-general, in the capital, is the representative of the king of Holland, and commander-in-chief of the land and sea military forces. He is assisted by a secretary-general, and a colonial council of four members, who must be of Dutch extraction, and born in Holland, or one of its dependencies, and thirty years of age; and they can exercise no other function while they are councillors.

Justice is administered, in the last resort, in a supreme court at Batavia, which has jurisdiction in all cases above five hundred florins. Three subordinate civil and criminal tribunals, and three courts martial, subordinate to a central court in the capital, are established at Batavia, Samarang, and Sourabaya. A member from each of these courts makes a circuit, at least every three months, into the provinces under its control, to preside at a court of assizes, composed besides of four native chiefs chosen annually by the government, on the recommendation of the natives. The permanent tribunals of the residencies or provinces are the *land raaden*, composed of the resident, four members selected from among the regents, a secretary, &c. In each regency and commune there are justices of the peace, with authority in petty cases.

The Chinese in Java are governed by their own laws, under functionaries chosen by them, who are responsible to the Dutch for the behavior of the rest.

There are some slaves in Java, brought from Bali and Celebes, by Europeans and Chinese, but they are few in number. Labor is cheap, a laborer getting in the European districts only four pence a day; and in the native from two to two-and-a-half pence per day; but they are notwithstanding in a much better condition than the inhabitants of Bengal, being generally well fed clothed and housed. Their food is chiefly rice, maize, and sugar. Each peasant has his cottage and small garden.

The proprietary right to land, except in a few districts, belongs every where to the sovereign. No law nor usage gives to the oldest occupant the land he has reclaimed from waste, or the farm he has enriched by his industry. As a matter of convenience, the same cultivator may continue to occupy the same field for life, and his family may afterwards succeed; but none can retain possession against the will of the sovereign, or even of his own immediate superior.

Half the produce of wet land, and a third part of that of dry, was formerly exacted by the government; but at present the government takes only one-fifth part of the produce; nor has any proprietor, purchasing land of the government, the right to demand more of the native occupant, except for lands which the proprietor himself may have brought into cultivation, for which he may demand one third part or less, according to the productiveness of the land. How different is this treatment of the natives of Java by the Dutch, from that of the poor Hindoos by the British! The latter are inhumanly taxed and oppressed, as is acknowledged by every honest English writer. "It is not uninstructive," says Mr. M'Culloch, "to compare this moderate assessment with the exorbitant amount taken from the occupiers in Hindostan, and to mark the results exhibited in the impoverishment of the inhabitants of British India, and the stationary condition of the country."

No permission is necessary from the Dutch Government, for Europeans wishing to go to Java, but a license from the colonial governor is necessary to remain there. Europeans are permitted to buy and sell lands in the western provinces, and to hold leases in the northern. The principal conditions are the payment of a tax of one per cent. on the estimated value of the property; that the proprietor shall not exact more than the before-mentioned proportion of produce as rent, and that he shall keep the roads and bridges in repair. The European proprietors receive their rents in kind, and are obliged to take their produce to Batavia to be shipped. The free cultivation of every article of produce is allowed, except the poppy.

The extent of estates held in property in 1830, was about 5,000 square miles, divided between twenty or thirty European, and ten or twelve Chinese proprietors, of which about 1,800 square miles were held by eight or ten Englishmen. Since 1830 the amount of property held by Europeans, in Java, has increased materially. All proprietors, whether Dutch or not, are treated precisely alike by the government. Large capitals have been expended on the lands, held by Europeans, in irrigation, the construction of sugar-mills, and mills for husking rice, and in the introduction of machinery from Europe. The introduction of European capitalists and residents has greatly improved the condition of the natives, who are always ready to enter their service. Theft and robbery, though common elsewhere, are seldom heard of on estates belonging to Europeans, and there are no instances of personal violence done the latter. About 500 square miles in the territories of the native princes are leased by Europeans.* The natives cultivate the rest of the land according to their ancient customs and usages, paying a rent to the government, partly in money and partly in kind. A village system is very prevalent, by which every commune has its own lands, the culture of which it has a right to direct, and which is conducted for the benefit of the inhabitants in common. The produce is divided, after deducting the rent, into equal parts, according to the number of hands engaged in its production. The lands belonging to a commune vary from 40 to 100 acres, and to each individual is allotted from one and a half to two acres.*

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* *Maclaine's Evidence*, in Parl. East Ind. Reports. *Earl*, Eastern Seas.

The territories of the native princes comprise about one-fourth part of Java and its inhabitants, in the centre, south, and south-east parts of the island; the capital of the Susuhunan, or Empire of Java, being at Surakasta, on the Solo river, and that of the Sultan, at Djocjokarta.

The greatest religious toleration exists in Java, and ministers of all Christian sects are equally remunerated by the government.† Superior schools are established in the chief towns, and primary schools in most of the provinces.

MILITARY FORCE.—The squadron stationed in Java, by the government of Holland, sometimes comprises several ships of the line, but in time of peace usually consists only of a few frigates and corvettes. There is, besides, a colonial navy of light vessels—schooners, gun-boats, &c.—which forms a separate branch of service, though both are generally placed under the command of the admiral of the royal squadron, who has the title of director of the Dutch East India navy. Besides the foregoing force, a flotilla of cruisers, manned by native Javanese, is supported by the different marine provinces. The land forces consist of eleven battalions of infantry, a corps of pioneers, two battalions of artillery, a regiment of hussars, and a portion of a squadron of lancers. In all there are about 8,000 Europeans in the Dutch Javanese army. The government of Java is a heavy expense to Holland; but notwithstanding, in ordinary years it remits to the mother country a very considerable revenue.

CITIES AND TOWNS.—Batavia, the capital of Java, and the seat of government of the Dutch East Indies, is situated on an extensive bay, on the N. W. coast of the island, in lat. 6° 12′

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* *McCulloch's Geog. Dict.*, art. Java.

† Such toleration, however, has not at all times been allowed. Four American missionaries were sent to the islands of the East Indian Archipelago, in 1836. On their arrival at Batavia, the suspicions of the government were, in some way, aroused against them, and they were forbidden to proselyte among the natives in the Dutch colonial possessions, except in Borneo. They were, besides, obliged to reside a year at Batavia, before they could repair to their field of labor. "Few acts of modern Christian governments," says Mr. Williams, "can compare with the proceedings of the Dutch colonial authorities in relation to this matter, and all their ordinances were either sanctioned or suggested by their superiors at home. It would be an instructive subject for investigation to examine the many ways in which Protestant governments have opposed the progress of the gospel and freedom of conscience in various ages and parts of the world, and especially to describe the many precautions they have taken, lest the diffusion of Christian truth should undermine and weaken their power over the natives. The English and Dutch, in the East and West Indies, in the Indian Archipelago, in Guiana, and at the Cape Colony, have all of them, at one time or other, done much to prevent the natives from receiving the truths and instructions which formed the basis of all the blessings they themselves enjoyed, because the natives must not be disturbed in their religion." See *Williams' China*, vol ii., pp. 336, 337.

S., and long. 106° 54′ E. The situation is low and marshy, at the mouth of the Jaccatra river. Several of its streets are intersected by canals, lined with trees, and crossed by numerous bridges. These canals, by being the receptacles of all the filth of the city, render it unhealthy. Back, on the heights, is the upper town, where the government functionaries and principal merchants reside. The lower town is occupied by the natives and Chinese. The existing fortifications of the city consist only of a few small batteries and redoubts in and about the city. The principal streets lie along both sides of the river. The houses being of brick, and stuccoed, are spacious and neat; and the ground floors in the principal houses are formed of marble slabs. On the north side of the city is the citadel, a square fortress, with a bastion at each angle, containing the residence of the governor and some warehouses; on the south side is the Stadthaus, in which the courts of law are held. There are three churches and a theatre. The Jaccatra is navigable for two miles only for vessels of forty tons. The harbor is very extensive, and is protected by a range of small islands.

There is a bank at Batavia, with a capital of 2,000,000 florins,* and with branches at Samarang and at Surabaya.—We have no very late returns from this bank, but it has afforded very large dividends. In 1838 the official returns announced a dividend of 33½ per cent.

Batavia was built in 1619. In 1811 it was taken by Sir S. Auchmuty, and held by the British till 1816, when it was restored to the Dutch. Batavia once had a population of 160,000 souls. In 1834 the population had diminished to 53,861, including 12,419 slaves. McCulloch estimates the present population at from 60,000 to 70,000. The great unhealthiness of the place is assigned as the reason for its diminished population, though some writers think it as healthy as any part of Java.

Proceeding eastward along the north coast from Batavia, the next town of importance is Cheribon, a healthy thriving place, with a good harbor, and a population of 10,000. It contains a beautiful mosque. It is the residence of a Dutch governor, and has a flourishing trade. A fort protects the town and harbor. The district of Cheribon is remarkable for its fertility, and the excellence of its coffee, indigo, and teak timber.†

Samarang, farther east, has an extensive commerce, and a population of 30,000. It is tolerably well built, and fortified. It has many good houses, a large church, a town hall, a hospital, a military school, a theatre, and an observatory. The harbor is not very secure. Its trade in coffee, pepper and rice is very great. A governor resides there. The place is more healthy than Batavia.

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* The florin of Java is 40 cents.

† Hamilton's East India Gaz., vol. ii., p. 535.

The next city of commercial importance, in Java, is Surabaya, the most thriving town in the island. It is larger than Batavia, its population being at least 80,000. We have no particular description of the place. Its harbor is very fine, and is open to foreign vessels. The other large places of the island are Rewbang, with 8,000 inhabitants; Banyumas, 8,000; Surakasta, 105,000; Yugyakerta, 90,000. These last are chiefly occupied by natives.

HISTORY.—The history of Java, in ancient times, is very obscure; but the existence, at the present day, of wonderful and stupendous ruins, in various parts of the island, proves that it was once the seat of a powerful empire and people. The history of Java cannot be traced back, with any degree of certainty, farther than the latter portion of the 12th century. From that time down to the establishment of Mahommedanism, at the close of the 15th century, the religion of the people was a modified Hindooism, and a number of independent states existed in Java.

The ruins of Java are found in various parts of the island, but we can only glance at a few of the most remarkable. Those of the city of Majopahit are among the most extensive in all the East. This city had, between two opposite gates, the remains of which still exist, a breadth of about three miles, which would give to the city a circuit of twelve miles, if the enclosure had been a square. The Hindoo kingdom of Majopahit was overthrown by the Arabs in 1478.

In the interior, back of the city of Surabaya, in the Vale of Kedu, are the extensive and admired ruins of the temples of Boro Bodor; and in the vicinity of the city of Yugyakerta are the ruins of Brambanan, called Chandi Sewu, or the Thousand Temples. These latter ruins are very extensive, occupying an area of more than seven acres. They are the remains of ancient Hindu temples, which consisted apparently of four rows of buildings, inclosing a large structure sixty feet high. The buildings, as they now remain, are all constructed of hewn stone, in large blocks, and are uniform in their character, each of the buildings being of pyramidal form, and highly ornamented with sculptures. The large central building is divided into several apartments, and contains numerous figures of Siva. The smaller surrounding temples are each furnished with an image of Buddha. There are four distinct entrances to the group, one facing each cardinal point of the compass. Each of those entrances is apparently guarded by two colossal statues in a kneeling attitude. The interior walls are ornamented with sculptures in alto and basso-relievo. A regular design is visible throughout the whole group of buildings, which exhibit, in their embellishments, less of what we consider fantastic and absurd than we are accustomed to find in similar remains in the East.

It is believed that these temples were erected towards the end of the 12th century.* Java, doubtless, presents a vast field for antiquarian researches, as well as, indeed, all the large islands of the Indian Archipelago.

Java was first visited by the Portuguese in 1511, who soon after began to make settlements. In 1595 the Dutch settled at Bantam, a place now of no importance, and in 1602 the English built a factory at the same place. This was the first possession of Great Britain in the East Indies. The Dutch, however, were the most powerful there, and the English and Portuguese were obliged to yield to them. Having built Batavia, the Dutch by degrees extended their dominion in the island, until, about the middle of the last century, they succeeded in dividing the native Susuhunan empire into two parts, and appropriating the greater portion of it to themselves. The two sovereigns became, at the same time, dependent on the Dutch government, and have since been obliged to sell to them, at fixed and low prices, large quantities of the products of the island. The Dutch also claim the right of confirming the successors of the sultans. The Dutch, for a long time, carried on incessant wars with the native princes, and owe all of their possessions to conquest.

In this paper we give the readers of the Review a sketch of the two most important islands of the East Indian Archipelago, commercially considered. In a future paper we propose to give an account of Borneo, Celebes, and the lesser Sunda islands.

Art. III.—VALLEY OF THE AMAZON.

No. III.

TRIBUTARIES OF THE AMAZON; THEIR NAVIGABILITY—EXPLORATION OF THE AMAZON BY AN AMERICAN MAN-OF-WAR STEAMER—THE TOCANTINS—GOYAZ—SALT WORKS—LAKE OF PEARLS—DYE-STUFFS—SUGAR-CANE—COLLECTING GOLD—PRODUCTIONS; THEIR PRICES—EXPORTS—POLING UP THE RIVER—DESIGNS OF BRAZIL—VALUE OF COMMERCE WITH THE AMAZON—RECIPROCITY—LAWS OF NATURE—CONDITIONS WANTING IN BRAZIL WHICH MAKE A SEAFARING PEOPLE—A CONTRAST—EXTENT OF BACK COUNTRY TRIBUTARY TO THE ATLANTIC OCEAN GREATER THAN THAT TO THE PACIFIC—OUR ATLANTIC PORTS HALF-WAY HOUSES—FREE NAVIGATION OF THE AMAZON; HOW TO GET IT.

THE Amazon enters the Atlantic through a delta. The principal tributaries from the south which fall into this river are, commencing at its mouth, and going up, the Tocantins, the Chingu, the Tapajos, the Madeira, the Purus, the Tappe, the Hyuruba, the Hiutay, the Tavery, the Ucayali, and the Huallaga—none of them smaller than the Ohio, and some larger than the Missouri.

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* Raffles' "History of Java." Crawfurd's "Indian Archipelago."

From the north come the Rio Negro and the Japura, (two mighty streams,) the Putomayo, the Napo, the Tigré-Yacu, and the Pastaza.

I have spoken of the present commercial resources of the Madeira and the Huallaga from the information derived from Lieutenants Herndon and Gibbon, United States Navy, and from M. Castelnau. As to the present condition of the trade and resources of these other rivers, except the Tocantins, we are left very much in the dark or to conjecture.

All of them, we know, have falls and rapids of more or less velocity, which offer obstructions more or less difficult to steamboat navigation. Therefore as to the question of how far these rivers may be ascended by steamboats at low water, and how far at high, that must be left for actual trial to decide. I hope, therefore, the time is not distant when an American steamer or two will be sent to make a complete and thorough examination as to this point, and to explore that rich and interesting region of country, with a view to its commercial resources, both present and prospective.

In the present state of our information, we can judge of the actual resources of these several streams for trade and traffic by comparing those as to which we are in the dark with those which have been recently explored. As the type of the whole in this respect, therefore, I take the Tocantins.

As you enter the southern mouth of the Amazon, the mouth of the Tocantins is the first but one that you pass. It traverses more parallels of latitude than our Mississippi does; but it is a straighter, and therefore not so long a river. It takes its rise in the provinces of Matto Grosso and Goyaz, and drains these two provinces with that of Para. This river lies wholly within Brazilian territory, and was explored down to port Barra by Castelnau in 1843–4. From him, therefore, I derive my special information with regard to it.

It drains a gold and diamond country, which is also an exceedingly rich agricultural one. Its principal tributary is the Araguay; and it is a most noble stream. Speaking of parts of the valley of the Tocantins in which he was, Castelnau says: "I believe that this rich and valuable country will be found one of the most healthy in the world."

The city of Goyaz, with a population of seven or eight thousand, and the capital of its province, is situated on the Vermilho, celebrated for its golden sands. This river is about twenty steps wide opposite the city, and vessels from Para come up and make fast to the bridge below. The distance thence in a straight line to the mouth of the Amazon is rather under than over a thousand miles. The population of the whole province, more than two-thirds of which is in the valley of the Tocantins, is 125,000, of which 25,000 are slaves.

There is a number of flourishing towns and villages on the water-shed of this river. Among these is Salinas, which derives its name from its salt-works.

Near by the salt lake of Salinas is the Lake of Pearls, surrounded by a beautiful vegetation, and numerously inhabited by aquatic birds. Nothing, says Castelnau, can give one "*une idée de la beauté de cette jolie pièce d'eau.*" Its waters are fresh, and it abounds with a shellfish which contains the pearl.

It was here that the *voyageurs* found such a variety of rare and useful plants; among them, one, the fruit of which is used to make ink, and it is an excellent substitute for nut-galls; another was a kind of cane, the roots of which make a yellow dye of the most exquisite hue. They obtained, wild from the forest, all the colors with which they painted the Brazilian flag that was hoisted during the descent of the Araguay, the principal tributary of the Tocantins, and far more beautiful than our *belle revière* of the *West.*

They use for tanning the bark of a tree, with which the raw hide is converted into leather in a month. They have two varieties of manioc, of great beauty, which require little or no labor in cultivation. It is propagated by cuttings or slips; so also is the sugar-cane, which sends up from every joint a dozen stalks, and gives a crop in every eight months. The black bean, an essential article of food with the Brazilians, grows here in great perfection; it yields four crops a year. Two kinds of beautiful palms grow wild in the woods, which also furnish the natives with an abundant supply of wholesome food.

There have been in this province as many as one hundred thousand slaves employed at one time in collecting gold alone.

But, as rich in mines as this province is, its soil, with its productions, is much richer. It is well adapted to the cultivation of cotton and coffee, sugar and tobacco, of Indian corn, rye, wheat, and oats; of rice, indigo, pulse, and potatoes; manioc, nuts, ipecacuanha, sarsaparilla, vanilla, anatto, balsam, India rubber, and a great variety of gums, spices, ornamental woods, roots, drugs, and dye-stuffs.

The margins of the rivers afford pasturage and support to numerous herds of cattle and horses. Their waters abound in fish. Castelnau saw dolphins sporting in them.

Limestone and saltpetre caves, with salt lakes, add beauty to the country and variety to its resources; also, iron mines abound.

The mode of cultivation is rude and ruinous. The planters scratch the earth with a pick, sow, and at the end of a few months, says Castelnau, reap one or two hundred fold, more or less, according to the fertility of the soil, and the excellence of the season.

The ordinary prices are: for coffee, 3¾ cents the pound; seed cotton, 1 cent the pound; white sugar, 3 cents; tobacco, 4 cents; beef cattle, $2 to $3 the head; tanned hides, 65 cents apiece; green ditto, 20 cents.

The exports consist of these, besides calf, kid, otter, and ounce skins, with other products of the field, the forest, the river, and the mine.

The imports are fabrics of silk, wool, flax, and cotton, hats, salt, drugs, medicines, crockery, wine, brandies, farming implements, &c.

The voyage up the river from Para occupies about five months. The upward freight is four dollars the one hundred pounds; the downward, one dollar; and the first steamer has yet to be seen upon this majestic stream.

Here, then, is a river which enters the Amazon so near the sea that the water at its mouth is salt, and Brazil has not had the energy to put the first steamboat upon it. How then is it possible for her to travel three thousand miles up the mighty Amazon, and introduce the steamer upon the waters of Peru, as she has endeavored to persuade the government of Peru that she can?

The crew of one of these rude vessels that go poling up the Tocantins as far as Porto Imperial, consists of from twenty to thirty men. They take down, among other things, hides, which at Goyaz are worth fifty cents, and at Para sell for one dollar and fifty cents, and so of other things.

The banks of this river are said to be inhabited in some parts by hostile Indians; and this, it is said, is one of the causes of its rude navigation. But the steamboat would certainly not have more to fear from Indians than these unwieldy hulks of Brazil, as they go creeping along the coward shores.

There are a dozen other rivers emptying into the Amazon that drain water-sheds, which no doubt are as rich and as fertile as this.

We are entitled to infer, not only by reference to the Tocantins as a type of them, but by reference to the quantity of produce that goes to sea from the Amazon, that the valleys of its other tributaries are not behind that of the Tocantins. Produce enough comes down the Amazon to Para to give that city an annual trade, to and fro, of three millions of dollars.

Bolivia sent last year from her part of this great water-shed two million dollars' worth of Peruvian bark alone. But that went over the mountains to the Pacific. The steamboat would have brought it down the Amazon to the Atlantic. It would have brought business to Para, and added greatly to the wealth of Brazil and the prosperity of her people.

It certainly would be wisdom in Brazil were she to make not only the navigation of the Amazon free to all the world, but it would be politic in her to throw open to foreign commerce and navigation the Tocantins also, and all her other Amazonian tributaries.

The value of the trade up and down the Tocantins would be increased manyfold; the hostile Indians, which infest its banks and prevent their settlement, would be driven away; and lands that are now profitless, and produce that is valueless, would become profitable.

We admit the coffee of Brazil into our ports duty free. We are her best customer and friend, and it is quite time that Brazil had signalized her appreciation of this patronage and friendship by some sign or token at least that she too would be liberal in her policy.

Since the subjects of Brazil themselves have not judged it expedient to put a steamer on the Tocantins to go up after all this coffee, and rice, and sugar, and tobacco, &c., it certainly would be wise in her to permit citizens of the United States, or of France, or of England, to do it. They would gladly go up this river after this fine Goyaz coffee. Her subjects then would receive double the price they now receive for it, and the rest of their produce. Those of them who are employed in transporting this merchandise to the sea-board by water and by land, would then find more profitable employment in the cultivation of the soil. Double the price of the staples of a country, and you not only double the price of labor, but you greatly enhance the national wealth. Increase the substance of the subject, and you increase his power to pay taxes; and this, I imagine, is what Brazil wants.

But this river Tocantins lies wholly within Brazilian territory; she has the right to open it to the commerce of the world or not, as she pleases; and her action with regard to it is no just cause of complaint or offence to any nation.

Not so, however, when she keeps closed the Amazon, and endeavors, because she holds the mouth of that river, to shut it up, and to cut off those five Spanish-American republics which own navigable tributaries to it, from commerce with the world, and all the world from commerce with them.

There are physical agencies at work upon the great Atlantic slopes of South America which will for ages prevent its inhabitants from becoming a maritime people. The laws of nature have ordained that the people who dwell upon those slopes shall be tillers of the earth or keepers of flocks and herds. That wise law-giver never intended that men should forsake a land of milk and honey for the mariner's calling, where, after toil, hardship, danger, and exposure, he can only gain the means of a frugal subsistence from the sea.

Bread grows on trees in Brazil; honey is found in the woods; and there is a tree there, too, which, being tapped, yields abundantly a rich juice which the people use instead of milk. Nature has never yet put it into the heart of man to forsake such a land and take to the sea.

The sea-front of these beautiful slopes proclaims this same law of nature. It is written in the fields, whispered in the breeze, and felt in the climate.

The sea has no spell by which the enchantments of soft climates, fertile soils, cheap lands, and a healthy country, can be broken. It is necessity—and that, too, a necessity that is right stern—which induces a man to forsake the land and take to the sea for a living.

Among the conditions requisite to make the people of any country a seafaring people, are peculiarities of soil and climate, which make it easier for the working man to earn his bread at sea than it is on the land. These peculiarities do not exist in Brazil, and Brazil has no seamen. Only look whence the sailors come that now do the fetching and carrying across the seas. They come from the severe climates of the extra-tropical regions of the north, and not from the sunny climes of the south. They come from Old and New England, the north of Europe and of America. Who ever heard of our western people, who live in the Mississippi valley, sending out their sons before the mast to make sailors of?

It is too easy there to earn a living out of the soil. Much easier is it in the valley of the Amazon, where the plantain and the banana, the most nutritious of food, grow and ripen, and are prepared for the table, without even the care of the laborer to dress the plant or the viand—where rice grows wild, the sugar-cane ripens every eight months, and where food enough to support a population of millions is annually wasted for the want of laborers to gather it. How can the people of such a country ever become a seafaring people? What, short of the messengers of God's wrath, the famine, and the pestilence, could drive a people from such a land, or induce them to forsake it and follow the sea?

Another condition necessary to the establishment of seafaring communities, is the presence of the sea.

Contrast the rock-bound coast of South America—its stiff outlines, its want of articulation—the rigid, forbidding sea-front of its Atlantic slopes, with the waving sea-shores, their magnificent gulfs, their beautiful bays and harbors, with the capes, promontories, and peninsulas, of the northern maritime regions of the earth, and see how forcibly nature has proclaimed the fact, that the soil and the climate of Brazil forbid her people to follow the sea. When the dry land first appeared, it was ordained that a power of maritime habits was never to dwell where Brazil is.

Look at the Baltic Sea, the Mediterranean and the Black, which, with their arms and gulfs, stretch up into the heart of Europe, and by their presence invite the people to leave those over-populated districts and inhospitable climes, to roam over the sea, and visit the sunny spots of the earth.

Again, look in like manner in the northern hemisphere—at the Red Sea; the Persian Gulf; jutting out Hindostan, tipped with the pendent isle of Ceylon; the Bay of Bengal; the Straits of Malacca; the gulfs of Siam and Tonquin; the Yellow Sea, the seas of Japan and Oktask, winding along the shores, insinuating themselves among the people far back in the country, and with a coast-line wonderfully indented, inviting them out to sea—consider this, and then contrast this shore-line of North with the shore-lines of South America, South Africa, and New Holland. There is no articulation there, and nature never intended either of these three continents as the home of a maritime and seafaring people.

The same contrast holds between the bays, gulfs, bights, and peninsulas of North America, when you come to compare them with the straight lines which, in South America, divide the dry land from the sea. Nature, therefore, is against Brazil with her longings for maritime consequence. She must be content to let other nations fetch and carry for her. She can never have the shipping nor the men to carry her own produce to market. They have something better to do.

All of Europe, some of Asia, half of Africa, most of North America, and nine of the ten parts of South America are drained into the Atlantic. The three largest rivers in the world empty into it, and the largest river basins are tributary to it.

It is but as a narrow canal which separates Europe and Africa from the New World; and the amount of back country which through river basins and Atlantic slopes is tributary to this oceanic canal, must for ever send down to it an immense amount of produce and merchandise. The Atlantic Ocean is, therefore, destined to be forever the great scene of this world's business and of commerce; and the principal features in this arrangement of land and water, and distribution of river-basin and sea-highways, is the valley of the Amazon.

The winds and currents of the sea are so ordered, that, wherever the market place may be, every sailing vessel, as she passes to and fro between it and the mouth of the Amazon, must, either in coming or in going, pass by our doors.

The Atlantic seaports of the United States are the half-way stations between the mouth of the Amazon and all the markets of the earth. The trade winds and the great equatorial current of the Atlantic have placed the commercial mouth of the Amazon in the Florida Pass, where they have placed that of the Mississippi. These two magnificent rivers unite at our feet, and pour their wealth along our shores.

For these and other reasons of import, the free navigation of the Amazon, and the settlement of its valley, become matters of deep interest to the world, and of especial interest to this country. Therefore, it is incumbent upon this country to take the initiative in opening the trade and navigation of that river to the world. The policy of commerce requires it, and the necessities of Christendom demand it.

Art. IV.—RESOURCES AND PROGRESS OF PHILADELPHIA.

MR. TYSON'S LETTER TO MR. PETER.

No. III.

The temporary decline of Philadelphia commerce implies only the control of those mysterious agencies in the fate of communities, which are sometimes observable in the life of individuals. The causes themselves were casual, and future circumstances developing new elements of growth and large capacities of increase, proved that as the causes were transient, so the effects could not be permanent. We saw the thunder-cloud and felt the tempest; but we had not to mourn the fell fury of the lightning nor the destructive upheavings of the earthquake. The cloud once so black and threatening, was seen at length to reveal a silver edge, and the sun to peep through the crevices of its departing shadows. Perhaps these adverse events were only in fulfilment of our lot, since it is said by Jacob Taylor, the early astrologer and versifier of Pennsylvania, that his horoscope reflected propitious images of unmixed good fortune, except during a brief interval of evil:

> "An envious cloud may shade the smiling morn,
> Though fates *ordain the beaming sun's return.*"

The accumulated blessings of Pennsylvania show that no malignant planet presided at her birth, that no evil genius has woven the web of her destiny. Surpassingly rich in herself, independent of other States for the same cause, and furnishing in her great metropolis an outlet and mart to so many of her sisters, she may be said to be poised in the centre of the system, a loadstone of intrinsic power, and attracting to itself all materials of similar value. For reasons like these, she has not been inaptly denominated the *Keystone State.* But looking to the principles of her civil as well as to her material history, to her geographical position, to her unlimited resources, to her natural and artificial lines of connection—how, without aid, she can stand alone, and yet in the capacity of her supplies how important to the aid of others—she may be called not merely the *Keystone State* of the Federal Union, but to form the strong and enduring *Arch* itself, destined, perhaps, as she is capable and willing, to support in perpetuity the grand and majestic edifice of the colossal national pile!

As I have touched upon the external materials of Philadelphia commerce, it is necessary to consider what she possesses in herself to minister to its interests, as a community. It will strike you perhaps with surprise, that Philadelphia should continue to advance, as she really has increased, in population and activity, even during the partial eclipse of her commercial sun, at its darkest hour. But a reason will be found for this apparent anomaly, if we look at the state with which she is connected. Amid all her troubles, the fields of Pennsylvania waved in smiling and plentiful luxuriance; the materials of manufacturing industry were supplied from the tracts of her uncultivated domain; and other States looked to her for fuel and iron, for the means as well of making machinery as of applying it to productive uses.

In half a century after the English settlement of Pennsylvania, her chief city exceeded the population of New-York. She maintained this superiority to the year 1830, when the Erie Canal of New-York, in diverting her western trade, and the minerals of our own State in decoying attention and capital from the concerns of foreign commerce, began to manifest their effects on the numbers and wealth of Philadelphia. It may be well to trace this

> "tale
> To the dim point where records fail."

At the time of the English settlement, in 1682, the site of Philadelphia was a dense forest, a broad expanse of magnificent and illimitable wilderness, almost untrodden by civilized foot. New-York was, at that time, a flourishing town, with a population of about 5,000 souls. The city of Penn soon passed her as a community, in trade, in population, and in wealth. We have no data which are worthy of reliance, as to the respective populousness of the two cities, until the national census of 1790. I extract from that and its successors the following table:

CITY AND COUNTY OF NEW-YORK.

Years.	Inhabitants.
1790	33,131
1800	60,489
1810	96,373
1820	123,706
1830	197.112
1840	312,710
1850	515,394

CITY AND COUNTY OF PHILADELPHIA.

Years.	Inhabitants.
1790	54,391
1800	81,009
1810	111,210
1820	137,097
1830	188,961
1840	258,037
1850	409,045

It appears, from this table, that Philadelphia was entitled to the consideration of being the largest city of the United States, down to the year 1830, when New-York, by the census of that year, exhibited an excess in population of less than 8,200 persons. The era of retrogression, in comparison with her neighbor, may be fixed at that lamentable period,—the epoch of so many troubles—when the Bank of the United States placed itself in an attitude of defiance to the will, the power, and the popularity of President Jackson. The bank fell, if not in the encounter, at least by the wounds which that encounter inflicted, and buried some of our ablest, however mistaken, citizens, in its stupendous but melancholy ruins. Though New-York has advanced with accelerated speed since 1830, yet Philadelphia is close behind her,—*proximus et* non *longo intervallo.* According to the census returns, notwithstanding her losses—mineral, financial, and commercial—she has increased in a ratio exceeding thirty-five per cent., in every ten years.

But I am unable to admit the extent of disparity in population, between the two cities, which the census of 1850 exhibits. The census gives to New-York 515,394 inhabitants, and to Philadelphia 409,045, but it assigns to the latter 61,202 houses, and to New-York the inferior number of 37,730. Now, these returns give to New-York the enormous and unexampled average of thirteen and five-eighths persons to a house, and to Philadelphia the more usual ratio of six and two-thirds residents to a dwelling. No city in continental Europe, filled with the victims of penury and squalor, has ever presented, in the proportion of its dwellings to its population, so sickening and revolting a picture. The fact is overcharged, to the disparagement of our fair and stately neighbor. The census finds in Philadelphia nearly twice as many houses as in New-York, for the accommodation of a population only *four-fifths* in number. In this respect the census is as inconsistent with itself, as it is absurd in the statistics of New-York manufactures, to which I shall presently advert. There is no doubt that the area of Philadelphia is greater than New-York, but this is attributed to its wider streets and larger yards, as well as to the superiority of its building accommodations. But New-York, by a commendable practice, worthy of imitation here, is careful to mark her intermediate progress, every five years, by a local enumeration. In her census of 1845, the number of inhabitants returned was 371,223, being only 58,513 above that of the preceding national census. If, then, we adopt the census of 1850 as true, we make the increase of New-York, during the succeeding five years, more than *double* the number of the antecedent lustre. Is there an adequate cause for this inequality between the two periods?. Does not such an incongruity prove, in combination with the unnatural disproportion of inhabitants to dwellings, the existence of some great error in the number assigned to her? In the year 1847, a carefully prepared estimate of the population of the city and county of New-York was made, by division into wards, at the instance of its municipal authorities, under the apportionment of the state. This estimate assigned her but 297,362 inhabitants, an inferior number to that returned by the decennial enumeration of 1840. The disproportion between 297,362 and the number officially returned about two years after, is too striking to consist with the accuracy of both enumerations. Add, if you please, any reasonable estimate for error in computation, and for the two years' interval—say 100,000, a number sufficiently large,—and New-York would not reach the population of Philadelphia. But what say the returns of election themselves? It cannot be doubted that in the canvass of 1848 for President of the United States, the population of New-York flocked to the polls with an ardor and eagerness unknown in this city. The aggregate vote cast in New-York was 1,000 less than in Philadelphia, or about one-fiftieth more in the latter than in the former community. If, then, in obedience to these returns, we concede that in New-York an unusual number of persons are huddled together,—the miserable and depraved occupants of one receptacle,—still her own census of 1845, the statement of the municipal authorities in 1847, and her vote in the autumn of 1848, alike forbid the correctness of the late official enumeration. The truth seems to be, that the two cities are nearly equal in number, the population of New-York being less, and that of Philadelphia more numerous, than what is respectively assigned to each by the national census of 1850.

Whether it arises from the less crowded condition of Philadelphia than her neighbor, or the presence of better physicians, or the greater efficiency of her sanitary regulations, certain it is, the mortality of the two cities is out of all proportion,—more than 100 per cent. in favor of Philadelphia. All that is wanted by our beautiful town for *comfort*, if not for salubrity, is that some Boyle or Davy, or perhaps such a discoverer as our own Morse, should by a direct line, conduct a stream of cool and invigorating air from the salted waves of the Atlantic to this freshaired, and plentifully but fresh-watered metropolis. If Philadelphia had such an electric machine for two months in the year, she could part with it to her neighbor for the other ten; where inverted in its use, and made to convey the atmosphere of her confined alleys, and the stench of her polluted hovels, *into the ocean*, it would confer a benefit, amounting to a blessing!

But Philadelphia, as if for the double purpose of keeping in advance of New-York in regard to buildings, and to preserve her augmenting numbers from those diseases incident to close companionship in cities, is stretching out her long arms in every direction. Without an island to limit her magnitude, she is nearly five miles in extent along the Delaware shore, and presents on the Schuylkill River a remarkable scene of thrift, activity, and business. In the year 1850, the number of buildings erected was 3,815, and in the present year, it is computed to reach from 4,000 to 5,000 houses. But it is worthy of note, that the structures now in the course of erection are unequalled, for amplitude and expense, by those of any previous period.

Having thus settled the size, the health, and medical prospects of Philadelphia as a community, let us turn to the subject of her business. This is comprised in manufactures, and in commerce. The manufacturing interests of Philadelphia are so large, as alone to give some energy to her foreign and domestic trade. In 1810, those within the corporate jurisdiction of the city, then containing 53,722 inhabitants, were valued in an official report made to the Secretary of the Treasury of the United States, at the sum of $9,347,768. I find the following statement in Mr. Hazard's valuable Register of Pennsylvania for the year 1831, as to the extent of this business, within the same municipal limits. The account is accurate as far as it goes, but it omits nearly half as much as it includes. Among other articles, it should have noticed the manufacture of *porcelain*, then pursued with a success, which shows the existence of a material here susceptible of being made quite equal in beauty to the finest fabrics of that description in France.

"There are in Philadelphia and its vicinity 104 warping-mills at work, sufficient to employ about 4,500 weavers; dyers, over 200; spoolers, 3,000; bobbin-winders, 2,000; whose wages would amount to $1,470,040; consume 114,400 lbs. of indigo per annum, 1,820 barrels of flour for sizing; make 81,000 yards per day, or 24,300,000 per annum; at 16 cents, $3,888,000."

Since the preparation of this statement, machinery has been so variously applied, as, by the magic of *steam*, to produce wonders in the way of manufacture. We are informed by a tabular summary, which is founded upon the census returns of June 30, 1850, and printed in the Commercial List of February 21, 1851, that the capital invested in the manufacturing business in the city and county of Philadelphia, is nearly $34,000,000, yielding an annual aggregate product of more than $64,000,000, or nearly twice the former amount! Fine as these returns are, let us turn to the census for the statement of New-York productions, in comparison with those of Philadelphia, and it will be seen with what Midas-like magnificence the materials are transmuted, or how the figures are enlarged:

	New-York.	Philadelphia.
Capital invested in manufactures	$34,232,822	$33,737,911
Number of hands employed	83,620	59,106
Value of annual products	105,218,380	64,114,112

Now, when it is considered that the Philadelphia manufacturer has nearly all the raw materials at his elbow, and that the manufacturer of New-York has the expense of transporting from a distance most if not all of what he requires, the high profits of the latter in comparison of the former is a subject of unqualified surprise. But these products, if not indeed the amount of capital invested, are as easily reconciled with probability as the census in regard to population. I could easily show that the variety and pecuniary value of our manufactured articles are *two-fold* greater than those of New-York.

The means of manufacture in Pennsylvania being so cheap and abundant, activity has been proportionally stimulated. Articles are produced of great variety, and of surpassing excellence. In all her fabrics, Philadelphia aims at superiority. In chemicals, machinery, railway and pleasure carriages, paper-hangings, carpets, and an almost endless diversity of manufactured stuffs, her pre-eminence is unquestioned by the pretensions of rivalry. So much are manufactories the order of the day, that it is said in no community of the same size on the globe, are there so many steam engines at work, nor any in which they are applied to so great a variety of purposes as in Philadelphia. Unhappily, a Statistical Society, whose promises delighted us with the prospect of many blessings, having ascertained the number of these engines, suddenly evaporated like their steam, or disappeared in their smoke. The tables which were made are extinct or lost, and the valuable society itself, resting from its labors, is no more!

From figures of such magnitude, I know not how to descend to the small fry of publishing establishments and medical colleges. But among the permanent elements of prosperity, if not fairly to be included in the category of manufactured articles, are the *book-publishing business*, the largest by far in this country; and the annual supply to the world of the United States of about a *thousand well-made physicians.* The pecuniary results of the book trade may perhaps be less than the literary influence it secures; but from our unrivalled medical schools, of which there are not less than *six*, Philadelphia derives a great part of her literary and scientific eminence, and the more substantial return of nearly *a million* a year.

But the vital principle of Philadelphia wealth is to be derived from commerce; for this at last crowns the prosperity of all the rest. Half the benefits of her internal trade will not be realized, half the fair results of her domestic industry and products will not be secured, without that reciprocity of exchanges which a foreign commerce supplies. These productions must be shipped and sold to foreign regions, and their fabrics returned and consumed, or sent to the domestic markets of our own country. Let us see whether the marine of Philadelphia is adequate to that immense trade which will be concentrated within our borders.

We have seen that by the census of 1830, New-York then first took the *lead* as the largest city in the United States. It was at this time, from the causes already adverted to, that the foreign commerce of our city began most sensibly to decline. From '30 to '40 there was no advance, though an appearance of flickering prosperity, resulting from accidental events, gave it temporary life between '35 and '40. From '40 to '45 it was stationary, nor was there much variation till after the year 1845. Since '46, commerce has received an impulse, the extent of which may be seen by the following summary of the number of arrivals at this port:

Years.	Foreign.	Coastwise.	Total.
1845	387	8,029	8,416
1846	459	6,018	6,477
1847	657	18,069	18,726
1848	542	23,921	24,463
1849	585	24,594	25,169
1850	518	27,035	27,553

But the augmentation is more distinctly shown by the *value* of the exports and imports, within the last three years of the same period. The imports, which had dwindled in 1845 to *seven millions and a half*, have gradually risen, and for the last three years have annually exceeded *twelve millions of dollars*. In the year 1848, the value of the exports from Philadelphia was more than *five millions*, and in the year ending July 1, 1850, it amounted to *four millions and a half*, making for imports and exports about *seventeen millions of dollars*. But the statement of Philadelphia commerce is incomplete without the arrivals and tonnage of vessels engaged in the coal trade, at the suburb of Richmond, on the Delaware, a community already so near to Kensington, that the waves of population from the two places approach so nearly together as almost to meet. For 1848 we have the following summary:

Barks.	Brigs.	Schrs.	Sloops.	Boats.	Total.
51	532	4,191	448	4,750	9,993

In these 9,993 vessels were carried one and a quarter millions of tons. The returns are incomplete for 1849 and '50, but I have no doubt, from the annual augmentation of the coal trade, that the vessels and freights would show an enhancement in number and magnitude. The value to Pennsylvania of the coal trade at Richmond and elsewhere, adding the produce which is carried besides coal, and the return cargoes may be safely estimated at from *twenty* to *thirty millions of dollars* per annum. But I shall return to the subject in a few days.

Art. V.—THE GREAT WEST.

THE west is no longer the west; nor even the *great* west. It is the great centre. It is the body of the American eagle whose wings are on the two oceans. The centre of population seeking the centre of territorial productiveness, long since, in its movement westward, passed the Alleghanies, and is now making its way in a north-westerly direction through Ohio. Our people, after nearly two centuries spent in multiplying their numbers, and gathering their strength on the Atlantic border, broke over the mountain barriers, and spread themselves, scatteringly, over the vast interior plain. Persons are living who saw this plain one vast desert of forest and prairie; it now contains, within our national boundary, fourteen millions of people; including the Canadas, it numbers sixteen millions. Every year is adding, by natural increase and immigration, materially to this number. From the old States and from Europe, an annual tide pours into it, rich with the youth and vigor inherited from generations inured to think and to labor; this tide, increasing from year to year, promises to swell from hundreds of thousands to millions, and, so far is this influx from lessening the inducements to future immigration, that every million of new comers creates new comforts for the common use of the millions who follow.

The central plain, including Texas and Canada, contains not less than sixteen hundred thousand square miles, equal to one thousand millions acres of land, fit for cultivation. Divided equally among the sixteen millions now living on it, every man, woman and child, would have sixty-four acres, and the population average ten to the square mile; with fifty to the square mile, like Ohio, it would contain eighty millions; or, like Massachusetts, 132 to the square mile, it would number two hundred and twelve millions; or if, like England, it had 327 to the square mile, it would have five hundred and twenty three millions. All these millions and more, will, one day, find here an ample and happy home. They will have descended from an ancestry formed of the strongest spirits of the old world and the new; men seeking difficulties for the enjoyment of overcoming them. It may require a period of two hundred years fully to people the North American plain; but, within the present century, before the year 1900, within the lifetime of persons now living, it will contain seventy-five millions, being nearly three times the present number of the whole nation. In its vast extent it has a marked unity of character. From the Gulf of Mexico to Hudson's Bay and the Polar Sea, from the Appalachian mountains on the east to the Rocky mountains bounding it on the west, its surface is nearly unbroken. The lakes of the north spread out their wide waters almost on the general level of the plain, while the rivers, which pour their accumulated waters into the gulf, have excavated their own channels, deep but narrow, towards their sources, gradually approximating their waters to the general surface, until they elevate their beds above the general plain at their mouths. For commercial and social purposes, it is the more one whole because of its lakes and rivers. By these channels are its people bound together. Even if steam had not begun its race on the land, its triumph on our interior waters, in cementing the bonds of union among its various parts, would have been complete. From the remotest regions, men and the products of their labor are transported by steam to the central marts of trade. In short, steam, working on our waters, has made our commerce one and our people a brotherhood. Diversity of climate, employment, and mineral products, tend only to strengthen this unity. Steam, working on rail-roads, will soon give great intensity to the forces now operating to bring the remotest parts of the plain into intimate relations of friendship and trade. The change is coming upon us so rapidly, that only the young can fully comprehend it. Like a splendid dream will it appear to people of mature age. Before the census of 1860 shall be printed, the whistle of the locomotive and the roar of the rolling train will be heard at nearly every house and hamlet of the wide central plain, and no one but a hermit will be willing to live beyond the cheering sound these will give forth.

All the changes in business and social relations which will grow directly out of the general extension of rail-roads, it is not given to any one to foresee. That it will promote the growth of leading centres of commerce and manufacture, is already made manifest by the experience of the old States and England. Indeed no one could, with reason, expect any other result. Whether this will be permanent or not, may admit of a doubt.

The rail-road has the power to spread out the city as well as to bring within its borders the various people needful to furnish it with the many wants of a high civilization. Our leading cities will be very populous, and spread over a wide surface. In our central plain will, probably, grow up the hugest aggregations of people in the world. Before it reaches the density of England, it will contain one or more cities numbering ten millions. Long before that period elapses, improvements in cultivation will so reduce the number needed to grow the food and raw materials of manufacture, that one-fourth of the population will be ample to effect that result; leaving three-fourths to be engaged in pursuits more profitably carried on in cities, where the greatest variety of employments furnishes the needed materials for the most effective co-operative industry.

The most fertile imagination, furnished with all the facts, would be at fault in predicting the condition of the community who will dwell on the central plain twenty years in the future. What development of commercial intercourse; what diversification of agricultural and mechanical operations, invited and rewarded by quick and cheap channels of transport; what development of architectural beauty, in rail-road stations, private residences, villages and cities; what public adornment of grounds, where learning, religion and gratitude erect their spacious halls, beautiful temples, and lofty monuments! The earth has no other such theatre for the growth of a rich and virtuous community. Nowhere else can so great a plain, of such fertility, in a climate so temperate, provided with so many natural channels of intercourse, and inviting so strongly such as man can make, inhabited by so energetic and intelligent a people, be pointed out on the face of our globe. Hither are hastening, as if conscious that a new Eden of happiness is about to be opened, hopeful and strong men, from all the nations and regions which breed reading, thinking, and promptly acting people. The history of mankind furnishes no parallel to the rapid colonization in progress here. From all the enlightened nations of the old world and from all the old States of our Union, multitudes are pouring in, which swell, in magnitude, with every revolving year. The imagination can conceive nothing more imposingly grand than this march of humanity westward, to enter into possession of "time's noblest Empire." No logical induction, no mathematical demonstration can be clearer to our mind, than that here will come together the greatest aggregations of men in cities,—outrivalling in splendor as in magnitude, all which past ages have produced.

In commencing this article, it was intended to lay before our readers such facts in relation to the navigable waters (lakes, rivers and canals), and the rail-roads of the great plain, as would show the present and prospective rapid growth of the internal commerce of this new empire. The foregoing is scarcely more than a prelude to the execution of this purpose. If time and opportunity do not fail us, the subject will be pursued in future numbers. We are fully aware of the difficulty of collecting such an amount of undoubted facts as to enable us fairly to represent the development of our interior commerce. At best, we can only promise a partial view of the changing scenes of industry manifesting themselves over our wide plain. To do it ample justice, the industry and graphic skill of half a dozen Benton's would scarcely more than suffice. J. W. S.

Art. VI.—FREE TRADE AND OTHER THINGS.

A PHILOSOPHICAL TUTTI FRUTTI.

The paper which we here offer to the reader is not intended as an attack on protectionists, for we are always disposed to publish articles in the Review upon both sides of this question. It is rather to be taken as a family communication—a friendly discourse among free traders, as sailors of the same ship will draw together and talk about the adventures of their own craft, when she is running pretty fairly, and the canvass seems to be set for a time. We shall assail no one. We do not hope to convince any opponent by so brief a paper. We wish, so far as this discourse goes, to persuade no adversary. Our only object is to point out to our friends some aspects of the cause we hold supremely important, that may contribute to render it still more important in our eyes, and to strengthen still more our convictions. To those who might object to our theme, the consideration that the victory is won, the battle is over, and free trade is established on both sides of the water, we would reply: far from it; but even if it were so, is not truth continually proved over again, so that it remains a living truth in the hearts of successive generations? and is it not the experience of every observer of his own times, and attentive reader of the past, that there is no truth ever so thoroughly proved and extensively acknowledged, no fact ever so firmly established, that must not be proved over again from time to time? Talleyrand said, "*Tout arrivé;*" he was right, but he did not pronounce the whole truth. Everything does not only happen, but every thing happens over again. Is there a truth of political freedom established by the laborious perseverance and struggles of centuries, that is not thrown to the winds at this moment in France? Were not truths, which for ages had been considered beyond the limits of doubt, on a sudden denied by the abolitionists of our time and country? Have we no Mormons among us who seem to leap back over centuries?

If a protectionist should publish a similar paper in favor of his side of the great question, we should certainly be the last to complain of it, provided he wrote in a fair spirit, use no hard names, and impute no sinister or secondary motives to those who differ from him; and if he do, why, it would not ruffle our temper either.

We invite, then, our free trade friends to draw near, that we may show them how free trade, which, indeed, means nothing more nor less than unshackled production and exchange for the purpose of unrestrained consumption, is one of the elements of the great household of mankind, by which our Maker has predestined the education of civilization—one of those fundamental principles in the guidance of our species, by which man's entering on the path of advancement, and his remaining in it, in spite of his many zig-zag courses, is made dependent upon his arbitrary choice and floundering errors, just as much so as the fact, that Providence ordained human emotion to vent itself in utterance through the supple organ of voice, and thus to become the beginning of that stupendous united work called language. We desire to show, that in this grave aspect free trade forms one of the great subjects of natural theology, if by this term we understand the branch of knowledge which endeavors to prove, or to show the highest probability, of the existence of a God, and of one God with the attributes of power, wisdom and benevolence, from the nature of the material and intellectual worlds, and of human society. We trust that it will not be necessary here to defend natural theology against the imputations of pretending to make revelation unnecessary. The deepest arguments of the human soul, man's loftiest longings and his bitterest regrets, cannot be answered or stilled by natural theology; nor is it denied that natural theology sees now, when our eyes have been strengthened by Christianity, what the ancient could rarely, and then even but dimly, discern. We, moderns, are in this respect somewhat in the position of astronomers who, by mathematics, prove observed facts and prove them well, yet their mathematics could never have construed the defence of astronomy, had not first the eye and telescope revealed the heavenly facts to the beholder and searcher of the firmament, longing for truth of things celestial.

Providence works with simple laws. Boerhaave's *Simplex Sigillum Veri* was meant for human knowledge; it applies to far higher regions; and when it is granted to man to trace with joyful reverence one of the simple laws of Providence which work the vastest effects, it will be likewise found with few, if any exceptions, that such law is the opposite to what a finite intellect would have devised. Our ways are not His ways. The great aphorism of Bacon, that man discovers truth so far only as he makes himself the patient interpreter of nature, receives a new or a vaster application than he himself probably designed, when he uttered that wise and pregnant sentence.

At first glance, for instance, it seems cruel that of all animals the young of our own species, which is pointed out as the highest of this earth, and destined to rule over it, should be born in a state of more wretched helplessness than the progeny of any brute. Closer inquiry, however, will show that the lower the animal stands in the scale of living beings, the more finished darts the young one into life, and the less it is dependent upon the parent's care. Fish and reptiles, insects and crustacea, do not know their parents; the higher the animal ranges, the closer and the longer is the dependence of the young upon the progenitors, until we reach the human being, the dependence of whose issue far outlasts the period of lactation, and connects the child not only with the nursing mother, but also with the father, while the dependence is of so long a duration, that years before it has ceased, affection and habits of obedience have had full time to develop themselves. Add to this simple law of human dependence, lasting far beyond the period of lactation, the fact, that because the child remains so long in a state of incapacity to provide for itself, other children of successive ages are added before the elder ones can take care of themselves, while the animals rear their young for an independent life before nature burdens the parents with a fresh litter, and you have the great law which forces man to the formation of the family—that community which constitutes the basis of society, of the state and of progressive civilization, and which forms this basis, not only in a chronological sense, but permanently so. The state did not at once originate in olden times. The state continues daily to arise out of the family. The family is the replenishing feeder of the canal, the source of the broad river; and the further civilization advances, the more essential becomes the family as a distinctly defined institution.

This is indeed another law which induction teaches us, that all the elementary principles of humanity, discernible in the rudest and saddest stages of human life, become intenser in their action, and more multifarious in their application, as man advances in the career for which he is destined. Man is always an æsthetical being. He always manifests a desire for the beautiful; but what a difference between the tattooing savage or painting Indian, and the Olympic Jove of a Phidias! yet both are the effect of the same principle and æsthetic attribute of our nature. There exists at all periods the consciousness of mine and thine—man is never without property; but the fish-hook, which constitutes nearly all a Pelew islander calls his own, and his resistance to an attempt of wresting it from him, differ widely from our ample and intensely active system of property, which becomes the greatest incentive of production, and the firmest cementing of society. There is no tribe that does not show a desire to subject the materials offered by nature for food, to some process of change. Man is ever a cooking animal; but compare a gnawing savage, or the tribes which, like the Thibetians or the settled Indians in New Mexico, have no appointed time for meals, and the well-spread dinner of an affectionate family at a board, the mere cruet-stand on which illustrates the searching commerce which hurries its keels to distant regions, to return with cargoes of pepper, and the indefatigable industry which obtains each grain of salt from the bowels of the earth, or the bosom of the sea. Man always speaks. He is a speaking animal; yet the process of growing intensity in the action of the same principle, may be observed in the long distance which lies between the chopped utterances and confined expressions of a Bushnana, and the discourse of a Socrates with his disciples, or "the deep broad stream of speech" of a great senator. Man is never without worship. He is a religious being; yet the fetish heathen, though he proves the principle, shows it coarsely and in the narrowed compass, compared to the Christian, the spirit of whose religion pervades his whole life and deeply tinctures even his institutions. Man has never existed without the acknowledgment of some relations of right. He is essentially a jural being, or, as Aristotle has it, political by nature; but the principle manifests itself in a very different degree of intensity in the Malay pirate, who claims his "rightful share of booty," and the citizen-dweller in a majestic fabric, like our own confederacy, with all of its jural and political relations. Man possesses always the ideas of good and bad, for he is a moral being; but this attribute is manifest in a very different degree in a pilfering South-sea islander, and in the moral code of advanced nations. Man must ever produce. Even in the lowest of all stages—the stage of gathering and hunting, he cannot wholly escape the necessity of producing. Nature places him so destitute and naked on this earth, that it would seem the worship of animals—apparently so inconsistent—has often proceeded from an admiration of their more direct and farther reaching instincts, and of their seemingly superior outfit by nature, so that the animal really appeared the wiser and more fortunate being. Yet it is impossible to express in words the difference of activity, when we compare the incipient stages of production, and the division of labor which is always connected with it, in the inhabitant of the Aleuthian islands, to the agriculture, manufacture, and to all the thousand branches of physical and mental production in an active modern nation. All human beings exchange, and man has been called an exchanging animal; he is never found without exchange, yet the difference between the humbler bartering of the earliest stages, and our all-encompassing commerce is so great, that superficial observation would not discover the identity of the principle in both. It proves, as the other instances we have given, that the principles essentially belonging to humanity, manifest themselves the clearer, the intenser, and of the more extensive operation, the farther man advances, and, consequently, the more he develops his own nature and characteristics. No one of these principles exhibits the law in a more striking manner than production and exchange.

The brute animal lives within the limits of narrow self-sufficiency. Men are dependent upon one another. The law of mutual dependence pervades the whole economy of our kind in a physical point of view, in an intellectual, moral, and cultural. If an intelligence, limited like the human mind, had conceived the construction of man, and ordained the relations in which he was to live to the material world around him, it is very probable that the highest perfection would have been aimed at, in giving to man but few wants, and in placing a sufficient supply of means to satisfy them within easy reach. Psychologists will hardly doubt that this would have been the case; and all the early dreams of poetry, in which fancy actually indulges in the construction of a perfect state of things, show the probability of our hypothesis. But it was decreed far otherwise. Had we been organized and placed in relations such as we have just indicated, the consequence must have been isolation. Society could not have been formed, and the earth must have been dotted with insulated clusters of selfish, self-sufficing beings. Advancement and culture could not have taken place.

We find, therefore, similar to the law of prolonged dependence of the young on the parent, as the animal rises in its organization, that the lower the organic creature the more readily it is provided with nourishment immediately around it, and the more direct and machine-like are its instincts to seize upon the proffered food. An oyster opens its shell and it finds its food; the mammals must go in quest of it; and man must toil hard for it, harder than any animal. He has not only industriously to exert himself in order to obtain food; he is obliged to exert himself similarly to obtain against nature around him that protection which the Creator makes a part of the brute itself. Man must clothe himself. But this law of apparent cruelty toward man, extends to a much wider range; for, not only are the wants or desires of men, according to his finer organization, far more multifarious, even if we speak of his physical desires only, but the means of satisfying them are generally far removed from him. They are locally far from him, when he has to obtain the raw material, and they can be obtained by long and varied processes of changes only, where he has to produce them, that is, where man must analyse, combine, fashion, and multiply the materials offered by nature with the constant aid of natural agents. Yet this apparent cruelty is one of man's greatest blessings, and one of the striking evidences of a ruling and guiding Providence; so that if we succeed in clearly developing it, we shall add an important item to natural theology.

Let us consider the physical wants and desires of man. Two things strike us at once. The necessities of man are many, compared to those of the animal, and they increase in number with our advancement. Human food alone is a striking instance. The palate of the animal is capable of relishing but few articles of food, while the human organs of taste are so delicately constituted that they can appreciate, and our whole system is so arranged, that it can assimilate, the greatest variety of substances. A comparison of the food of any animal, even of the domestic dog, to the variety of esculents in our markets, the products of our fisheries, and the list of imported goods used for prandial consumption, puts this in the clearest light. Nor will any one who is familiar with the fact of political economy, that food constitutes an incomparably greater part of human production than all else together, charge us with having selected an instance of too material and coarse a character.

On the other hand, the wants of men are remarkably uniform in spite of the difference of clime, of civilization, of government, of fashion, of rank, of race, and a thousand distinctions which separate them. All men, therefore, long for the same main substance of food, of raiment, of shelter, and of ornament. This we may call the uniformity of multiplied wants.

The capacity of the earth, however, to supply the means of satisfying these wants is infinitely diversified, and in the greater number of cases indissolubly connected with specific climes, soils, situations and local peculiarities. So that we arrive at this elementary law: the multiplying wants of men are uniform—they exist everywhere; the capacity of the earth is regional, and locally confined.

Undeniable as this will appear to every one, it may not be useless to dwell upon a few illustrations. It is one of the delights of the human intellect to induct a law from many cases—to tie them, as it were, like flowers, into one wreath of thought, and again to trace this law in many cases, wide apart from one another—to scatter the flowers of the wreath over a wide extent.

The palates of all men are pleasantly affected by the taste of sweetness; so much so, that in most idioms the word sweet is used no longer in a tropical sense, or if so, it must be called a very faded trope; for that which charms by gentleness, delights by purity and loveliness, and is dear to our very souls. Sweetheart is a term full of meaning. The "honeyed eloquence of Pericles" is understood by all; all know what is meant by a sweet song, sweet music, sweet temper. When our heart is full of affection, the lips utter the words sweet child, sweet wife, and the overflowing soul, throbbing with gratitude, and love, and faith, adores its "sweet Saviour."

These expressions, derived from a sensual affection, go everywhere directly to the souls of all men, in all climes, of all ages, in all periods, because the palates of all delight in a properly tempered degree of sweetness. All who can do it use daily their sugar. The paupers in England and in the United States are not denied a daily allowance of this substance. No feast is celebrated, no marriage concluded, without an external manifestation of the inner and delighted man, without cake, and sugar forms one of the characteristic ingredients of that festive food. The Swedish peasant gives, at Christmas, some molasses even to his dumb cattle. The plainest reality can do no more without some saccharine substance, than poetry, whether of the poet's "making,"* or that poetry which pervades all life, and, therefore, all language, can do without terms derived from its effect on our organs. So much for the uniformity of human wants. Is it produced with equal uniformity in all regions? The rays of the sun fall in very few countries only, in that angle on the earth which is necessary for the growth of the cane, yielding the most desired of all saccharine substances. Even if we include honey, maple and beet-root sugar, how few are the countries producing sugar compared to the numberless populations desiring and enjoying it! The local capacity of satisfying this uniform want is extremely restricted. All men relish sugar, few regions produce it.

A deep blue colour has ever pleasurably affected the eyes of all men; their organs of sight are of a uniform structure; yet indigo, furnishing the richest dye of this favorite color, grows in very limited districts only. All men value the many pleasant, finely draping, and readily dyed tissues of wool. It is a delight to see and handle delicate webs of this substance, and woollen cloth is everywhere one of the staple articles of usefulness and ornament. The Indians covet our blankets. Blankets constitute one of the chief articles of the intercourse which subsists between the United States government and the native tribes, and Homer delights in singing the beauty of the purple carpet and soft woollen cover, worthy the acceptance of a king; yet the animal which furnishes the fine and limber thread is not reared in all the regions where wool is prized. Adorning silk is valued in the orient, and by the Western races, because its tempered gloss and ready reception of the richest colors, and of every tint of chaste or gorgeous dye, make it agreeable to all eyes, and because the minds of all men are so constituted, that as soon as the wants of necessity are satisfied, they are happily succeeded by the wants of taste—the desire of ornate comfort, and the ever-active longing to rise in our condition, and to make our mode of existence agree with it. Yet, universal though the consumption of silk stuffs be, their production is necessarily confined to comparatively few parts of the globe. Cotton has become a blessing to mankind, promoting health, decency, and respectability, where squalid want, disease, vice, and tattered disregard of self used to prevail with millions upon millions. In Asia, Africa, Europe and America, the rich and the poor, the young and the old, men and women, colored and white, stand in need of cotton, while the countries producing this cherished commodity can be easily numbered. The same may be said of all farinaceous substances, of wheat, rye, maize, rice; of wine and oil; of iron and copper, lead, leather, wood and fish; of flax, gold, silver; of condiments and perfumes, precious stones and granite, and of whatever may constitute the long catalogue of products necessary for man's existence or comfort. There is a map of the world attached to the atlas of Berghaus, showing the localities of the most important plants. If a similar chart, showing the localities of all the most important products could be constructed, it would strikingly present to the eye the all-embracing law of mutual dependence, at least so far as this law operates between nations and regions. It is the great law of territorial division of labor and consequent union of men. The animal, we have said before, is doomed to labor in its confined sphere, under individual independence and isolating self-sufficiency; man alone was blessed with the injunction of mutual dependence, a constituent of good-will and peace, and an element of ever-widening civilization.

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* In Scotland, the poet was in former times significantly called the maker.

And here we have somewhat anticipated the conclusion at which we were desirous of arriving. If the law we have endeavoured to exhibit be true; if it lie at the foundation of human society and its expansion; if it be a fact that all desire the same products, but only a few of our species have it in their power to produce the means of satisfying one or two wants, whether they be wants of necessity or culture; if it be, nevertheless, the will of our Maker that man should have many wants, then it is clear that the so-called law of vicinage is not founded in nature, but that, on the contrary, it is a fundamental law that we should depend upon one another in wider and wider circles, and that multiplied, brisk and expanding exchange is the only means by which we can give full play to this law. Every one who strives to interrupt, and succeeds in hampering its efficacy, interferes with a fundamental principle of civilization. Men are all the time engaged in removing obstacles to communication, in building bridges and roads, in inventing propelling engines and blasting rocks, and calling on astronomy to guide their vessels on the sea; yet they have been rearing at the same time obstructions far greater than those which brute matter throws in our way, by enacting prohibitions of exchange. It is the free trader indeed that is the essential protectionist. As to the principle of vicinage, now so popular with our opponents, we would only ask what is distance? If it entails wasteful labor and expense, then indeed it is an evil; but if you annihilate it, it ceases to be an inconvenience. If East India cotton can be carried to Glasgow, there be manufactured into calico, this calico be carried back to the Indies and there be sold cheaper than the calico of domestic Indian manufacture, what is the distance to the consumer, or where is the waste entailed by carriage, so long as the same material cannot be produced as cheaply at home, and so long as the Hindoo laborer can exert himself in more productive work?

Civilization once ran in the narrow channel of single nations. The whole theatre upon which that great drama called Greek history and Grecian civilization was performed, was confined within the narrowest limits. The very gods dwelled within that Greece, which forms but a patch of the surface over which modern civilization spreads. In antiquity, we have said on another occasion, we find a strict succession of one civilized nation to another, the succeeding one improving on the antecedent, and predominating for a time over the rest. It was a monarchical principle, as it were, in the line of succession; but in modern times we rather see a commonwealth of civilized nations. In antiquity history coursed in the narrow channel of single countries; in modern times history resembles our own broad ocean, where the flags of all nations meet. It is Christianity and the wide universal character of modern knowledge, which have been mainly instrumental in rendering possible this remarkable phenomenon. With the ancients everything was strictly national. Religion, polity, knowledge, literature, art, acknowledgment of right, all had a local character; with us, the different colors on the map do not designate different districts of religion, knowledge, art and customs—not even necessarily of languages. There are wires of mental telegraphs which cross all those red and yellow lines. Yet great as the expanse of civilization is, compared to antiquity, it is daily increasing with accelerated movement. Old populations are brought within the pale of culture, and new empires of our own tribes are springing up at opposite ends of the globe. And what binds them together? Knowledge and religion. They bind indeed, but they cannot do so without intercourse, and thus intercourse is commerce, commerce is exchange.

Now, shall we counteract the widening course of civilization, the noblest and holiest achievement of modern times, by rising against such fundamental laws of history and humanity? And can it be denied, or has it ever been gainsaid, that commerce is but the effect of the universal commandment of exchange, and has been the constant pioneer of modern advancement?

Free trade is nothing more than unrestrained exchange, and man is bidden to exchange. Free trade is a term like that of the liberty of the press. Men would never have thought of designating particularly free trade and the free press any more than the liberty of breathing, dressing or locomotion, had not interference with them and an aberration from the simple path, made it necessary to return to the natural state. When men had lost free exchange and free communion, and when the people were forced to struggle hard and often in bloody strife to recover these lost blessings, then indeed it became necessary to use distinct terms for them.

Possibly we may carry the parallel between free trade and the liberty of the press one of these days still further. The endeavour of all rulers hostile to self-government, have made it necessary to enumerate the liberty of the press as one of the chief points in all the charters of liberty or the bills of rights. Perhaps the time will come when freedom of production and exchange will be added to the bills of rights. It is, indeed, one of the first rights of a free man. We are proud of self-government; but, surely, self-government is incomplete when man is shackled in so individual and primitive a right. The socialist who eschews self-government and submits all individuality to social absolutism, is not wholly inconsistent if he insists upon protection. Protection is a piece of veiled socialism; but who of us wishes for socialism.

If free trade be never put in the bills of rights, it will only be because the free and leading nations are so rapidly acknowledging this important right, that the next generation may speak of the abstraction now called protection, as we ourselves speak of the beauty patches which disfigured the ladies of the last century. They considered the patches beautiful; the others consider protection wise, and some patriotic. Many are sincere;

so did many belles sincerely believe they beautified themselves by beauty spots and plasters.

We speak of free trade, my friends, and with friends alone, it will be remembered, we have desired to converse. Allow us then to add a remark, which is indeed not directly connected with the subject of the preceding part of this paper, but very closely with the subject of free trade in general, as it presents itself at present in the United States. It is well known that in former times the American protectionists rested their argument on the necessity of protecting American or "national" capital. It was said that the American producer is obliged to work with capital which bears higher interest than in Europe, and that therefore European products, wrought so much cheaper, ought not to be allowed to compete with domestic products. But no matter for what reason, this specific argument became distasteful to the American people. The ground of argument was therefore speedily shifted. It is no longer American capital that stands in need of protection, but American labor. The wages paid for American labor are higher, and ought to be higher, than European wages; consequently, it is said American products must be dearer, and they ought not to be interfered with by the influx of European goods. This is at present a favorite protectionist argument. In our opinion it involves a whole cluster of fallacies, but we shall content ourselves with asking a single question only: If it be the object of protecting, as it is erroneously called, American labor, by excluding foreign goods —the mere products of foreign labor—does it not follow, *a fortiori*, that the importation of foreign labor itself must be intercepted? If the protection of American labor, in plain words, the protection of American wages, requires the exclusion of a certain amount of foreign products, it requires far more urgently the exclusion of 200,000 *hands* which are annually sent from Europe. But no protectionist has, so far as we know, ever avowed that he believes in this species of nativism. Yet, why not? Immigration as well as the perfection of machinery ought to be prohibited, if the American labor argument be correct. Immigration is the importation or influx of labor itself, not merely the importation of the products of that labor. But we cannot obtain foreign goods without producing something at home that we can offer in exchange for them, while the importation of labor itself in the shape of immigration, must directly interfere with the wages paid here, unless indeed there were any substance in the obsolete error that we gain by keeping the money within our country. Our object in writing this paper has not been to refute all old and new errors, and thus we abstain from saying anything on this argument which is founded upon the erroneous comparison of a people's money with the amount an individual has in his breeches pockets, which of course become empty by paying out money without re-filling them; but pockets do not produce. There seems to be but one real mode of protecting American or any labor. It is the security that the laborer shall be able to obtain for his wages all the consumable commodities he is entitled to, in the natural unhampered order of things—the *whole* amount of all he may obtain in *free* exchange for his labor or wages. But it is not protection of labor if by some forcible act of government the wages are made nominally high. There is such a thing as a natural right of exchange, and what old Sir Edward Coke said in the year 1621, is as true to-day as it was then: "Freedom of trade (and this includes all exchange; for the debate was about monopolies) is the life of trade; and all monopolies and restrictions of trade do overturn trade."* The same great lawyer and commoner was severe against all restrictions of the foreign corn trade; yet many modern protectionists in England stigmatized free trade, which in that country turned upon the exclusion or admission of foreign grain, as an invasion of the constitutional law and liberty of the land. The reader will find in a note some remarkable tory opinions on free trade. And here we take leave of our friendly reader. If, perchance, some protectionist should read the paper, we will call him in the old fashioned style, our *courteous* reader, for some of them are courteous; and as to the others, it will neither harm them nor us to call them so.

We quote from Lord Campbell's Lives of the Chief Justices of England: "We free traders are often charged with defending new-fangled ideas. Strange! The idea of protection is comparatively a new one, and, viewing history, altogether exceptional. Nor are we, as it has been frequently stated, extravagant in our notions. Our opponents seem to forget that in 1748 the English solicitor-general, Mr. Murray, afterwards the great Lord Mansfield, spoke vehemently in Parliament for allowing Frenchmen to insure maritime property in England, though at war with England. So did the attorney-general Ryder, and both were tories. —*Holliday's* "*Life of Lord Mansfield,*" pp. 90-97. Does this startle some reader? Why, the Dutch free trade principle was that a besieged fortress, having an abundance of gun-powder, should sell it to her enemy, if the enemy might obtain it otherwise. This brings to our mind the part that Napoleon I. in his war with Spain, allowed the Spanish army to draw upon Paris bankers; for, said he, "If I do not allow it, Paris will lose the commission, and the Spaniards will draw upon London, and give the profit to the English bankers. They will have their money at any rate." We confess our weakness that we felt what is vulgarly called tickled, when we stumbled upon this passage in Las Casas's "Memorial de St. Hélenè." Of course our love of free trade is no love of trade above all other loves; and we felt ashamed, though thousands of miles from England, when we read of the late committee of London mammonairs ostentatiously cootooing before the throne of such a man as Napoleon III., because they wished to invest capital in new French railways. We admire the liberty of England, that it allows a thing for which the mammonian prostrators would have been sent to dungeons in every other European country, and we feel mortified that a Gurney or a Bareton could have degraded themselves by such an address to an emperor of such a government.

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* Parliamentary Proceedings and Debates, I, 308: II, 155.

Art. VII.—TENNESSEE, PAST AND PRESENT.*

If we had taken up this volume for the purpose of reviewing it by inspection rather than study, it would have been impossible to have laid it down without perusal. It is filled with frontier adventures of the most exciting, often of the most pathetic character.

It describes in better connection than any other work, the relations between the whites and Indians, as they existed in that important section of our country. We see how the ferocious cunning of banded savages, encouraged by European sagacity, was directed to the extermination of our infant settlements.

It shows the first efforts to restrain the expansion of a nation which has so triumphantly extended its institutions over the best part of this continent.

Often is the heart pained with recitals of savage barbarity; often the chance of successful settlement seems destroyed by the massacre of whole families, and the total destruction of their property; yet the native energies of the race rallies under every misfortune, and spreads steadily on its great mission. Sometimes, indeed, the most serious calamities appear the means of subsequent success, as when a captive boy acquired amongst the Creeks a knowledge of the condition of the tribe with which he lived, which enabled him afterwards to lead a decisive invasion into their country.

We have seen no better illustration of the self-directing capacity of our people than is presented by the Annals.

The territory of Tennessee, cut off from the present state, was compelled to rely upon voluntary association for military defence—for social order; yet spontaneous political organization resulted from the necessities which surrounded conflicting jurisdictions. Collisions occurred between the authorities of the mother state and the infant offshoot, but each party conforming to the spirit of the laws, the usual consequences of civil discord were avoided. Indeed, it not unfrequently occurred, that in the midst of violent altercations upon the comparative legality of rival governments, the whole power of the country was summoned to defend the homes, or to avenge some destructive invasion of the common enemy.

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* Annals of Tennessee. By J. G. M. Ramsey, M. D. Charleston: John Russel, 256 King-street, 1853.

There is no more delightful exercise in the philosophy of freedom than to watch the progress of self-government, from its beginning under the Regulators, till its perfection in a Republic. But we have not time, at present, for such reflections, interesting as they may be, but prefer rather to introduce, from the body of the volume, several extracts of a character appropriate to the pages of our work.

The early civil and political history of Tennessee presents a fruitful and interesting subject of investigation. A feeble and remote settlement of hunters, herdsmen, and small farmers—dissociated from Virginia and North Carolina by the intervention of a desert mountain, not embraced within the ascertained boundaries, and beyond the reach of the jurisdiction of either province, without its laws, its courts and its protection—this primitive, simple, and virtuous community, formed a civil and military organization adapted to their peculiar condition, and, under the unpretending name of the Watauga Association, laid the foundation of the future Tennessee. Assuming for themselves the name of Washington District—the first thus entitled to the credit of doing this honor to the father of his country—at the dawn of American independence, these pioneers of the west applied to the Council of North Carolina to be annexed to that province. They give as reasons, in support of their application, that 'they had already organized their militia, and were willing to become a party in the existing war, acknowledging themselves indebted to the American Colonies for their full proportion of the continental expense,' and pledging their determination to adhere 'to the glorious cause in which we are now struggling, and to contribute to the welfare of our own or of ages yet to come.' This pledge was most nobly redeemed—the revolution was effected, and independence achieved.

Peace, order and law succeeding to tumult and chaos and violence, the character of the partisan became merged in that of the citizen and patriot; and throughout the subsequent stages of political organization, whether as a territory of the United States, or as one of the independent sovereignties constituting the American Union, we are proud to find the impress of the valour, virtue and patriotism of the first emigrants stamped upon their descendants, who, obeying the injunction,

"Let no mean hope your souls enslave;
Be independent, generous, brave;
Your fathers such example gave,
And such revere!"

have, in all after times, emulated the heroism exhibited by their ancestors in their own wilderness, and on the heights of King's Mountain; and animated by the same lofty spirit of freedom and independence, glowing with the holiest impulses of patriotism, have displayed at Tohopeka and Emuckfaw, in the fastnesses of Florida, on the plains of the Mississippi, at the Alama and San Jacinto, under the walls of Monterey, at Cerro Gordo, Contreras, Churubusco and Chepultepec, the same fearless disregard of danger, the same unextinguishable love of freedom, the same pure devotion to liberty, the same undying thirst for glory.

In area of miles Tennessee is the seventh, containing 45,600 square miles.

In population the fifth, and the second of the Western States, being exceeded only by New-York, Pennsylvania, Virginia and Ohio.

In number of inhabitants to the square mile, the sixteenth.

In ratio of deaths to the number of living in 1850, the fifth, being exceeded, even in a cholera year, only by Wisconsin, Vermont, Iowa and Michigan.

In number of acres of improved land, the eighth.

In value of agriculture, implements, &c., the eleventh.

In value of live stock, the seventh.

In number of bushels of Indian corn, the fifth, being exceeded only by Ohio, Kentucky, Illinois and Indiana—the product of Tennessee, in 1850, being 52,137,863 bushels. In the census of 1840 Tennessee was the first in the product of this grain.

In tobacco, the fourth—being exceeded only by Virginia, Kentucky and Maryland—the crop of 1850 being 20,144,480 pounds.

In number of bales of cotton, the fifth, the amount of the year's crop being 172,625 bales; being exceeded only by Alabama, Mississippi, Georgia and South Carolina.

In the production of wool, the eleventh.

In the value of home made manufactures, the first state in the Union, amounting, in 1850, to $3,168,116.

In the value of cotton manufactures, the eleventh.

In the value of woolen goods, the tenth.

In the value of pig iron, the fourth.

In the value of wrought iron, the sixth.

The settlement of Tennessee was unlike that of the present new country of the United States. Emigrants from the Atlantic cities, and from most points in the Western interior, now embark upon steamboats or other craft, and carry with them all the conveniences and comforts of civilized life; indeed, many of which luxuries are, in a few days, without toil, danger or exposure, transported to their new abodes, and, in a few months, are surrounded with the appendages of home, of civilization, and the blessings of law and society. The wilds of Minnesota and Nebraska, by the agency of steam, or the stalwart arms of western boatmen, are at once transformed into the settlements of a commercial and civilized people. Independence and St. Paul's, six months after they are laid off, have their stores and their workshops, their artisans and mechanics. The mantua-maker and the tailor arrive in the same boat with the carpenter and mason. The professional man and the printer quickly follow. In the succeeding year, the piano, the drawing-room, the restaurant, the billiard, the church bell, the village, and the city in minature, are all found, while the neighboring interior is yet a wilderness and a desert. The town, and comfort, taste and urbanity, are first; the clearing, the farm-house, the wagon-road and the improved country second. It was far different on the frontier in Tennessee. At first a single Indian trail was the only entrance to the eastern border of it, and for many years admitted only of the hunter and the pack-horse. It was not till the year 1776, that a wagon was seen in Tennessee. In consequence of the want of roads—as well as of the great distance from sources of supply—the first inhabitants were without tools, and, of course, without mechanics—much more, without the conveniences of living and the comforts of house-keeping. Luxuries were absolutely unknown. Salt was brought on pack-horses from Augusta and Richmond, and readily commanded ten dollars a bushel. The salt gourd in every cabin was considered a treasure. The sugar-maple furnished the only article of luxury on the frontier; coffee and tea being unknown, or beyond the reach of the settlers, sugar was seldom made, and was only used for the sick, or in the preparation of a sweetened dram at a wedding, or the arrival of a new comer. The appendages of the kitchen, the cupboard, and the table, were scanty and simple.

Iron was brought at great expense, from the forges east of the mountain, on pack-horses, and was sold at an enormous price. Its use was, for this reason, confined to the construction and repair of plows and other farming utensils. Hinges, nails, and fastenings of that material, were seldom seen.

The costume of the first settlers corresponded well with the style of their buildings and the quality of their furniture. The hunting shirt of the militia-man and the hunter was in general use. The rest of their apparel was in keeping with it—plain, substantial, and well adapted for comfort, use and economy. The apparel of the pioneers' family was all home-made; and in a whole neighborhood there would not be seen, at the first settlement of the country, a single article of dress of foreign growth or manufacture. Half the year, in many families, shoes were not worn. Boots, a fur hat, and a coat with buttons on each side, attracted the gaze of the beholder, and sometimes received censure and rebuke. A stranger from the old states chose to doff his ruffles, his broadcloth and his queue, rather than endure the scoff and ridicule of the backwoodsmen.

The dwelling-house on every frontier in Tennessee was the log-cabin. A carpenter and a mason were not needed to build them—much less the painter, the glazier, or the upholsterer. Every settler had, besides his rifle, no other instrument but an axe, a hatchet, and a butcher knife. A saw, an auger, and a broad-axe, would supply a whole settlement, and were used as common property in the erection of the log-cabin. The floor of the cabin was sometimes the earth. No saw-mill was yet erected; and if the means or leisure of the occupant authorized it, he split out puncheons for the floor, and for the shutter at the entrance to his cabin. The door was hung with wooden hinges and fastened by a wooden latch.

Such was the habitation of the pioneer Tennesseean. Scarcely one of these structures, venerable for their years and the associations which cluster around them, can now be seen in Tennessee. Time and improvement have displaced them. Here and there, in the older counties, may yet be seen the old log house, which, sixty years ago, sheltered the first emigrant, or gave, for the time, protection to a neighborhood, assembled within its strong and bullet-proof walls. Such an one is the east end of Mr. Martin's house, at Campbell's station, and the centre part of the mansion of this writer at Mecklenburgh, once Gilliam's station, changed somewhat, it is true, in some of its aspects, but preserving, even yet, in the height of the story and its old fashioned and spacious fire-place, some of the features of primitive architecture on the frontier. Such, too, is the present dwelling-house of Mr. Tipton, on Ellejoy, in Blount county, and that of Mr. Glasgow Snoddy, in Sevier county. But those old buildings are becoming exceedingly rare, and soon not one of them will be seen. Their unsightly proportions and rude architecture will not much longer offend modern taste, nor provoke the idle and irreverent sneer of the fastidious and the fashionable. When the last one of these pioneer houses shall have fallen into decay and ruins, the memory of their first occupants will still be immortal and indestructible.

The interior of the cabin was no less unpretending and simple. The whole furniture of the one apartment, answering in these primitive times the purpose of the kitchen, the dining-room, the nursery and the dormitory, were [a plain home-made bedstead or two, some split bottom chairs, and stools; a large puncheon, supported on four legs, used as occasion required, for a bench or a table, a water shelf and a bucket; a spinning wheel, and sometimes a loom, finished the catalogue. The wardrobe of the family was equally plain and simple. The walls of the house were hung round with the dresses of the females, the hunting shirts, clothes, and the arms and shot-pouches of the men.

The labor and employment of a pioneer family were distributed in accordance with surrounding circumstances. To the men were assigned the duty of procuring subsistence and materials for clothing, erecting the cabin and the station, opening and cultivating the farm, hunting the wild beasts, and repelling and pursuing the Indians. The women spun the flax, the cotton, and the wool, wove the cloth, made them up, milked, churned, and prepared the food, and did their full share of the duties of house-keeping. Another thus describes them: "There we behold woman in her true glory: not a doll to carry silks and jewels; not a puppet to be dandled by fops, an idol of profane adoration, reverenced to-day, discarded to-morrow; admired, but not respected; desired, but not esteemed; ruling by passion, not affection; imparting her weakness, not her constancy, to the sex she should exalt; the source and mirror of vanity. We see her as a wife, partaking of the cares, and guiding the labors of her husband, and by her domestic diligence spreading cheerfulness all around; for his sake, sharing the decent refinements of the world, without being fond of them; placing all her joy, all her happiness, in the merited approbation of the man she loves. As a mother, we find her the affectionate, though ardent instructress of the children she has reared from infancy, and trained them up to thought and virtue, to meditation and benevolence; addressing them as rational beings, and preparing them to become men and women in their turn." Could there be no happiness or comfort in such dwellings and such a state of society? To those who are accustomed to modern refinements, the truth appears like fable. The early occupants of log-cabins were among the most happy of mankind. Exercise and excitement gave them health; they were practically equal; common dangers made them mutually dependent; brilliant hopes of future wealth and distinction led them on; and as there was ample room for all, and as each new comer increased individual and general security, there was little room for that envy, jealousy, and hatred, which constitute a large portion of human misery in older societies. Never were the story, the joke, the song, and the laugh, better enjoyed than upon the hewed blocks or puncheon stools, around the roaring log fire of the early western settler. The lyre of Apollo was not hailed with more delight in primitive Greece, than the advent of the first fiddler among the dwellers of the wilderness; and the polished daughters of the East never enjoyed themselves half as well, moving to the music of a full band upon the elastic floor of their ornamented ball-room, as did the daughters of the emigrants, keeping time to a self-taught fiddler, on the bare earth or puncheon floor of the primitive log cabin. The smile of the polished beauty is the wave of the lake, where the wave plays gently over it, and her movement is the gentle stream which drains it; but the laugh of the log-cabin is the gush of nature's fountain, and its movement its leaping waters.

On the frontier the diet was necessarily plain and homely, but exceedingly abundant and nutritive. The Goshen of America furnished the richest milk, the finest butter, and the most savory and delicious meats. In their rude cabins, with their scanty and inartificial furniture, no people ever enjoyed, in wholesome food, a greater variety, or a superior quality, the necessaries of life. For bread the Indian corn was exclusively used. It was not till 1790 that the settlers on the rich bottoms of Cumberland and Nollichucky discovered the remarkable adaptation of the soil and climate of Tennessee to the production of this grain. Emigrants from James River, the Catawba, and the Santee, were surprised at the amount and quality of the corn crops, surpassing greatly the best results of agricultural labor and care in the Atlantic states. This superiority still exists. and Tennessee, by the census of 1840, was the corn state. Of all the farinacea, corn is best adapted to the condition of a pioneer people; and if idolatry is at all justifiable, Ceres, or certainly the goddess of Indian corn, should have had a temple and a worshiper among the pioneers of Tennessee. Without that grain the frontier settlements could not have been formed and maintained. It is the most certain crop—requires the least preparation of the ground—is most congenial to a virgin soil—needs not only the least amount of labor in its culture, but comes to maturity in the shortest time. The pith of the matured stalk of the corn is esculent and nutritious, and the stalk itself, compressed between rollers, furnishes what is known as corn-stalk molasses.

This grain requires also the least care and trouble in preserving it. It may safely stand all winter upon the stalk, without injury from the weather, or apprehension of damage by disease, or the accidents to which other grains are subject. Neither smut, nor rust, nor weavil, nor snow storm, will hurt it. After its maturity, it is also prepared for use or the granary with little labor. The husking is a short process, and is even advantageously delayed till the moment arrives for using the corn. The machinery for converting it into food is also exceedingly simple and cheap. As soon as the ear is fully formed, it may be roasted or boiled, and forms, thus, an excellent and nourishing diet. At a later period it may be grated, and furnishes in this form the sweetest bread. The grains boiled in a variety of modes, either whole or broken in a mortar, or roasted in the ashes, or popped in an oven, are well relished. If the grain is to be converted into meal, a simple tub mill answers the purpose best. as the meal least perfectly ground is always preferred. A bolting cloth is not needed, as it diminishes the sweetness and value of the flour. The catalogue of the advantages of this meal might be extended further. Boiled in water, it forms the frontier dish called mush, which was eaten with milk, with honey, molasses, butter or gravy. Mixed with cold water, it is at once ready for the cook—covered with hot ashes, the preparation is called the ash-cake; placed upon a piece of clapboard and set near the coals, it forms the journey-cake, or managed in the same way, upon a helveless hoe, it forms the hoe-cake; put in an oven and covered over with a heated lid, it is called, if in a large mass, a pone or loaf; if in smaller quantities, dodgers. It has the further advantage over all other flour, that it requires in its preparation few culinary utensils, and neither sugar, yeast, eggs, spices, soda, pot-ash, or other etceteras to qualify or perfect the bread. To all this it may be added, that it is not only cheap and well-tasted, but it is unquestionably the most wholesome and nutritive food. The largest and healthiest people in the world have lived upon it exclusively. It formed the principal bread of that robust race of men—giants in miniature—which, half a century since, were seen on the frontier.

The dignity of history is not lowered by this enumeration of the pre-eminent qualities of Indian corn! The rifle and the axe have had their influence in subduing the wilderness to purposes of civilization, and they deserve their eulogists and trumpeters. Let peans be sung all over the mighty west to Indian corn! without it, the west would still have been a wilderness. Was the frontier suddenly invaded! Without commissary or quartermaster, or other sources of supply, each soldier parched a peck of corn; a portion of

'as put into his pockets, the remainder in his wallet, and, throwing it
n his saddle, with his rifle upon his shoulder, he was ready in half an
r for the campaign. Did a flood of emigration inundate the frontier,
h an amount of consumers disproportioned to the supply of grain? The
lity of raising the Indian corn, and its early maturity, gave promise and
ranty that the scarcity would be temporary and tolerable. Did the safety
he frontier demand the services of every adult militiaman? The boys
women could, themselves, raise corn, and furnish ample supples of bread.
crop could be gathered next year. Did an autumnal intermittent con-
the whole family, or the entire population, to a sick bed? This certain
comitant of the clearing and cultivating the new soil mercifully with-
ls its paroxysms till the crop of corn is made. It requires no further la-
or care afterwards. Pæans, say we, and a temple and worshipers, to
creator of Indian corn! The frontierman could gratefully say: "He
ceth me to lie down in green pastures. He leadeth me beside the still
ers. Thou preparest a table before me in the presence of mine ene-
s."

Co these extracts from the volume of Dr. Ramsey, which we
ieve, in every respect, one of the most instructive yet pre-
ed in regard to any of the States of the great west, we ap-
d such statistics of the population, wealth, etc., of the State,
are to be had from the reports of the census office, c iar
published.

IRON INTERESTS IN TENNESSEE.

	No. of Establishments.	Capital Invested.	Tons Pig Metal.	Tons of Blooms.	Tons of Ore.	Tons Mineral Coal.	Bushels of Coke and Charcoal.	Value Raw Material, Fuel, &c.	Male Hands.
tings.......	16	139,500	1,682	—	5,050	24,690	13,200	90,035	261
Iron	23	1,021,400	—	—	88,810	177,167	160,000	254,900	1,713
ought Iron..	42	755,050	11,696	325	9,151	62,038	—	385,616	713

	Female Hands.	Average Monthly Male Wages.	Average Monthly Female Wages.	Tons of Castings made.	Tons Pig Iron made.	Tons Wrought Iron made.	Value of other Products.	Value entire Products.
tings.......	8	17.76	4.50	3,384	—	—	—	264,325
Iron	109	12.82	5.10	—	30,420	—	41,900	676,100
ought Iron..	55	15.20	5.	—	—	10,348	38,800	670,618

STATISTICS OF TENNESSEE, 1850.

Total population	763,154
Born in the U. S.	755,655
Foreigners	7,499

DEAF AND DUMB.

Whites	Males	195	
	Females	140	335
Free colored	Males	0	
	Females	2	2
Slaves	Males	16	
	Females	24	40
Aggregate			377

BLIND.

Whites	Males	199	
	Females	186	385
Free colored	Males	4	
	Females	6	10
Slaves	Males	29	
	Females	44	73
Aggregate			468

INSANE.

Whites	Males	258	
	Females	195	453
Free colored	Males	1	
	Females	3	4
Slaves	Males	8	
	Females	13	21
Aggregate			478

IDIOTIC.

Whites	Males	439	
	Females	350	789
Free colored	Males	2	
	Females	2	4
Slaves	Males	36	
	Females	25	61
Aggregate			854

PAUPERS.

Number who received support within the year ending June 1st, 1850,	Native	994
	Foreign	11
Total		1,005
Whole number to June 1st, 1850	Native	577
	Foreign	14
Total		591

Number of churches	1,989
Ratio of churches to the population, 1 to 517.	
Aggregate accommodation of the churches	606,695
Value of church property	$1,208,876

CLASSIFICATION OF DENOMINATIONS.

Denomination.	No. of Churches.	Aggregate Accommodations.	Value of Church Property.
Baptist	611	188,815	$269,424
Christian	57	17,800	48,295
Lutheran	12	3,400	2,600
Methodist	831	240,353	378,511
Presbyterian	357	132,717	365,531
Roman Cath.	3	1,300	45,000
Episcopal	17	7,810	85,300
Free	28	6,900	6,665
Friends	4	1,600	1,300
Tunker	1	500	300
Union	15	3,900	3,800
Minor sects	3	1,600	2,150
Total	939	606,695	$1,208,876

REAL AND PERSONAL ESTATE.

Assessed value, 1850	$189,437,623
Estimated value "	201,246,686
Number of acres of improved land	5,175,173
Acres of unimproved land in farms	13,808,849
Cash value of land improved and unimproved	$97,851,212
Average cash value per acre	$5.16
Number of horses	270,636
Number of asses and mules	75,303
Number of milch cows	250,456
Number of working oxen	86,255
Number of other cattle	414,051
Number of sheep	811,591
Number of swine	3,104,800
Value of live stock	$29,978,016
Wheat, bushels of	1,619,381
Rye "	89,163

Indian corn, bushels of	52,276,223
Oats “	7,703,086
Rice, pounds of	258,854
Tobacco “	20,148,932
Ginned cotton, bales of 400 lbs.	194,532
Wool, pounds of	1,364,378
Peas and beans, bushels of	369,321
Irish potatoes “	1,067,844
Sweet potatoes “	2,777,716
Barley “	2,737
Buckwheat “	19,427
Value of orchard products	$52,894
Wine, gallons of	92
Value of produce of market gardens	$97,183
Butter, pounds of	8,139,585
Cheese “	177,681
Hay, tons of	74,092
Clover seed, bushels of	5,096
Other grass seeds “	9,118
Hops, pounds of	1,032
Hemp, dew-rotted, tons of	456
Hemp, water-rotted, tons of	141
Flax, pounds of	368,131
Flax-seed, bushels of	18,906
Silk cocoons, pounds of	1,923
Maple sugar “	158,557
Cane sugar, hhds. of 1,000 lbs.	248
Molasses, gallons of	7,223
Beeswax and honey, pounds of,	1,036,572
Value of home-made manufactures	$3,137,810
Value of animals slaughtered,	6,401,765
Area in square miles	45,600
Population in 1850	1,002,625
Number of inhabitants to the square mile	21.98
The number of deaths during the year ending June 1st, 1850,	11,759
Ratio to the number living,	1 to 85.26
Number of cotton factories, 28, produce	$451,676
Number of woollen factories, 38, produce	80,114

Art. VIII.—IMPROVEMENT OF THE OHIO AND MISSISSIPPI RIVERS.

We have, on one or two occasions, referred to the elaborate investigations and report made by Charles Ellet, Esq., civil engineer, upon the improvement of the navigation of our great western waters. These investigations were made under the authority of Congress, and occupied many months. It was our intention to have reviewed them very fully, but finding in the National Intelligencer and New-Orleans Bulletin somewhat elaborate notices and discussions of the work, we have determined to adopt them for the present.

The unequal distribution of its volume of water in different seasons of the year, is the only efficient obstruction to the complete and absolute superiority of the Ohio River, as a channel of commerce, over all others in the world, either natural or artificial. The Nile, the Ganges, the Danube, and even the Missouri, the Mississippi, and Amazon, have in other respects greater obstacles to their uniform navigation than has the Ohio. But it must be admitted that in a large part of the year the Ohio is reduced so low that its numerous sand-shoals nearly destroy its navigation. Could we *equalize* its waters, so that we could always have at least *six feet in depth*, we should have a natural canal which no known river can surpass, and whose capacity would far exceed that of any rail-road which can be constructed; for steam, the great locomotive energy, can be used on the river of such magnitude with a hundred-fold the effect that it can on a rail-road. Nor would such increased power of the Ohio River at all diminish the value and utility of rail-roads; but, on the contrary, would greatly augment their business. It is the Ohio River, which, by the creation of alluvial lands, and by its great axial channel of commerce, increases the magnitude of the valley cities, and thus furnishes the movement and the transit lines of those cities. The question then arises, whether the *equalization of waters* can be accomplished? If so, can it be done at a moderate cost? Both these questions must be answered in the affirmative; and so cheaply can this great work be done, that if it is not done, posterity will be astonished at the stupidity of their ancestors. The demonstration of this has been made by Mr. Ellet, in his report, so complete, that if the work be never done, this memoir at least will remain a monument to the genius and labors of its author, and to the skill of American engineers. We have not seen from the pen of the many accomplished engineers—and we have many—in our country, anything which better illustrates our superiority in this department of science. Our readers may perhaps be interested in a brief sketch of the principal features of the Ohio river, and an analysis of Mr. Ellet's plan for reservoirs.

The length of the Ohio is stated by Mr. Ellet to be 975 miles. We have in our possession a calculation of its length, made from the original surveys, by which its length appears to be not over 900 miles; and we feel assured that many of the distances from point to point put down in the ordinary pilot charts are by no means as long as they are represented. The distance from Louisville to Cincinnati, and the distance from Pittsburgh to Marietta, are, we believe, commonly called much greater than they are. However, the Ohio may safely be called more than 900 miles in length. Its course is nearly southwest; the plane of its descent inclining towards the ocean, as well as toward the Mississippi.

The sources of the Ohio, near Chautauque Lake, (N. Y.) are 1,300 feet above tidewater, and 700 feet above Lake Erie. A very short canal would there turn the waters of the Ohio into Lake Erie. If the bottom of the lake were continued to the Ohio horizontally, it would intersect the river below Marietta, so that all the Ohio above that point is above the level of Lake Erie.

At Condesport, (Penn.) the highest springs of the Ohio are 1,649 feet above tidewater. At the same point the summit level of the Alleghany ridge is 1,899 feet, or 250 feet higher.

Mr. Ellet has furnished a complete profile of the slopes of the Ohio and its principal tributaries. It may be interesting to some of our readers to know the levels and descents of the Ohio River at different points. The following are the levels of the Ohio *above tidewater*, at the principal places:

	Feet.		Feet.
Ohio River at Condesport, (Penn.)	1,649	Mouth of Kanawha, (Va.)	522
Olean Point, (N. Y.)	1,403	Portsmouth, (Ohio)	474
Warren, (Penn.)	1,187	Cincinnati "	432
Franklin, "	960	New-Albany, (Ind.)	353
Pittsburgh "	699	Mouth of the Wabash	297
Wheeling, (Va.)	620	Mouth of the Ohio	275
Marietta, (Ohio)	571		

The descent of the Ohio from Condesport to Cairo (the mouth) is just about the same as the descent of the Mississippi from its source in Itasca Lake to the same point. But the Mississippi, passing through a much longer space, has consequently a less rapid fall.

From Cairo to Pittsburgh the average inclination of the Ohio is 5 1-5 inches, but from Pittsburgh to Olean Point, the inclination is 2 feet 10 inches. The whole inclination of the river is a gentle *curve*, which bends more and more rapidly as it ascends to the sources of the stream.

The drainage of the Ohio is its most important element; for on that depends its depth of water and the usefulness of its navigation. Mr. Ellet is, we believe, the only engineer who has made complete experiments on the curves and drainage of the river, so that its volume of water at different depths can be fully ascertained. The *velocity* and *drainage* are matters of great scientific interest, and we give some of the results of Mr. Ellet's calculations as a matter of curiosity:

Depth of water on Wheeling Bar.	Velocity per hour.	Cubic feet discharged per hour.
2 feet	3,500 feet	10,000,000
5 "	6,500 "	34,000,000
10 "	13,000 "	118,400,000
15 "	16,500 "	226,000,000
30 "	24,000 "	700,000,000

It appears that at fifteen feet deep on Wheeling bar, the Ohio current runs at the rate of *three miles per hour*, and discharges more than *two hundred millions of cubic feet of water per hour.* At thirty feet, or high water on the Ohio, (equivalent to sixty feet at Cincinnati,) the current is nearly *five miles per hour, and discharges seven hundred millions of cubic feet of water.*

With these elements it is not difficult to calculate the *deficiencies* at low water, and the *excess* at high water, and consequently the amount necessary to be retained in reservoirs, in order to make the Ohio of a given depth at all seasons. Mr. Ellet has done this, and certainly the navigation and shipping interests of the Ohio are deeply indebted to him for his clear and able exposition of this subject.

But we must hasten to the conclusion, which, when we consider the magnitude of the object to be obtained, is remarkable for the smallness of the cost required. Mr. Ellet has ascertained beyond doubt that only three or four dams, no higher than those on the Schuylkill navigation, placed across the Alleghany, Monongahela, and Kanawha, above navigation, would be sufficient to equalize the depth of water to at least *five feet*, and that is sufficient for packet boats of a large class. The following paragraph from Mr. Ellet's report gives his conclusions:

> It has been the duty of the writer, at former periods, to conduct surveys along a considerable portion of the upper Alleghany, and the whole of the Great Kanawha, and to become familiar with the character of the Monongahela, as far as it is susceptible of improvement. Aided by this personal knowledge, and that acquired in the present investigation, he hazards the opinion that less than a million and a quarter of dollars will suffice to supply the Ohio with a depth sufficient for boats of five feet draught; to carry an open and permanent river navigation up the Alleghany to Franklin, and a slackwater navigation during three-fourths of the year from Franklin to the line of the Erie Rail-road in New-York; improve the navigation of the Monongahela into Virginia, and extend that of the Kanawha seventy or eighty miles above Point Pleasant; supplying water-power of unrivalled capacity and permanence on numerous lines of steamboat navigation, and curbing most essentially the destructive power of floods.

The cost of this most important enterprise is insignificant as compared with the magnitude of the objects; and it will be most surprising if the government, whose duty it is, should fail in the performance of that duty, if the shippers, navigators, and merchants of Ohio should not do it on their own account. Nothing can repay them better.

In speculating upon the process by which the bars at the outlets of the several passes are formed and maintained, Mr. Ellet repudiates the commonly adopted theory, that the force of the descending waters of the river is neutralized by the resistance of the sea at the mouths of the Mississippi, and deprived of the power to transport its sediment, and that this sediment then falls to the bottom, and thus the bars are created. He contends that the cause alleged does not exist; that the velocity of the river is not sensibly diminished at the bars, and that, consequently, the force of the current is not neutralized by the sea, and no such deposit can take place from a cause which does not exist. He tested the velocity at the different bars, and he discovered that the current some miles above the bars was precisely the same, under like circumstances of wind and tide, as it was on the bars. The current of the Mississippi extends out into the gulf many miles, and is not materially retarded by its contact with the waters of the gulf.

Neither will Mr. Ellet agree that the precipitation of the suspended material is accelerated by the mixture of the salt water with the fresh; for no such mixture to any considerable extent takes place at the bar. The fresh water being lighter than the salt, floats upon it, as oil does upon fresh water, and does not mix suddenly with it, but passes out to the gulf, and slowly mixes with the sea-water, as its column dilates, and spreads over a larger area. This fact was tested on several occasions, and he uniformly found a column of fresh water nearly seven feet deep in the gulf, even at a distance outside of land, and salt water at a depth of eight feet below the surface, and extending thence to the bottom. Mr. Ellet maintains, upon what he conceives to be demonstrative proof, that there is no sudden union of the fresh and salt water; no sudden destruction of velocity of the river, and consequently no precipitation of suspended silt, by which these bars are formed. This column of river water, moving over the surface of the gulf at a speed of two miles per hour, imparts a portion of its motion to the sea, and thus the fresh and salt water take the same direction towards the sea, and with nearly the same velocity, but yet keep separate. Our engineer contends, that this state of things cannot exist at the bottom; for as the river water is forever coming forward, if the salt water flowed towards the gulf it would be carried out, and fresh water would take its place, fresh water would then be found at the bottom; but the water at the bottom is, as he has shown, salt water; and this salt water comes in from the sea along the bottom. He thus makes three distinct strata of water on the bars:

1. Fresh water, running out at top, with a velocity of 3 feet per second.
2. Salt water between the fresh, also running out, with nearly the same velocity at top.
3. Salt water coming in slowly along the bottom.

Neither the fresh nor salt water going out can produce a deposit, for they have a velocity seaward strong enough to carry forward whatever is brought down the river. It is the inward current of salt water that produces the deposit, and Mr. Ellet thus explains the process: "All the sea water that comes in from the gulf must go out again. It comes in along the bottom, and it goes out between the column of salt water coming in and that of the fresh water going out. Each particle of salt water therefore must change its direction and position in elevation. It must pass from an inward bound lower strata to an outward bound upper strata. But in passing through this change of motion, its velocity up stream must be neutralized. It passes, to use a technical term, the 'dead point.' At this point it may cease to bear its whole burthen of mud, which it has brought from the gulf further forward, and leaves it at the turning point, and this is the point where the bar is in process of formation." It is simply the principle of the eddy at work, by the operation of which the bars at the mouths of the great Father of Rivers are created.

This is the theory of Mr. Charles Ellet, a gentleman who sustains a distinguished reputation as a civil engineer, and who has been entrusted by the government with the responsible duty of instituting surveys and investigations, with the view of increasing the depth of water on the bars. It is, as far as we know, his own theory—it is, at all events, new and ingenious, and entitled to the consideration of an enlightened public. Mr. Ellet states that he has verified the correctness of his conclusions by direct observations and actual experiments. On one occasion, beyond the extreme mud lumps at the mouth of the Southwest Pass, in 26 feet soundings, he filled a bottle with water at the bottom. The contents drawn up were fresh water; in all depths under 8 feet, the contents of the bottle were the same; but when the bottle was filled at a depth of seven feet from the surface, and less, its contents were fresh water. The column of fresh water was about seven thousand feet wide. The experiment was repeated on several occasions, and at different places, and with the same results. In order to test the refluent current, he immersed a hollow iron vessel filled with water, and suspended by a fine wire. At seven feet deep, the current swept the vessel outward towards the gulf; when sunk deeper, it was carried in the same direction; but when sunk to within three or four feet of the bottom, it began to return, and was brought by the inward current along the bottom rapidly up stream.

But this idea of a refluent current of salt water forming these bars is objected to, because, it is said, if it were so, the material composing these bars, being brought from the sea, would be sand, and not mud, Mississippi mud, as it really is. This conclusion does not necessarily follow: it is a *non sequitur*. The everlasting flood of the mighty Mississippi has been bringing down its volume of salt or mud for ages, carrying it far out seaward, even out sight of land, and thus decomposing it; and it is "this soft and moveable mud" that a refluent current brings back from the gulf, forming the bars, upon the established mechanical principles before alluded to. The "mud lumps" of which we hear so much, are found generally, although not always, at the outer edge of the bars, and in water as deep as five fathoms. They are produced, it is supposed, by the up-lifting of the bottom, and we know that the material that composes them is not sand, but what the name of them signify, mud.

So much for the theory of Mr. Ellet, as to the mode by which the bars are formed and maintained. Our knowledge of hydronamics is too limited to authorize us to pronounce upon it. The theory, as we have before said, is ingenious as well as novel, and coming from the respectable source it does, is entitled to consideration and weight.

Art. IX.—MISSISSIPPI VALLEY COAL FIELDS.

COAL is developed in the greatest quantity on the banks of the Ohio and its tributaries, for nearly 900 miles below Pittsburg. We found no coal workings below Caseyville, a village in Kentucky, about two miles above Trade Water Creek, a tributary of the Ohio River. At New Madrid, on what is called "Sand Blows," after an earthquake, small lumps of coal were found of various sizes.

The convulsions, or earthquakes, which usually visit that place, follow long continued rains; and the received opinion is, that the coal is ignited thereby. How much below the surface coal is found, has never been ascertained. The specimens of coal thrown up by the convulsions of nature, which we saw at New Madrid, had the appearance of being subjected to the action of fire, and would seem to establish the theory of the inhabitants, that the coal is ignited by long continued rains.

In judging of the quality of the different kinds of coal, we were governed by the appearance and the result of trials on board the steamers on the river, and in workshops which came under our immediate observation, as well as the opinion of persons using it on steamboats and for manufacturing purposes.

The value and importance of the coal lands in the West have not heretofore engaged the particular attention of the owners.

The time, however, has now arrived, when their value and importance are being daily developed. The scarcity as well as the high price of wood on the banks of the Ohio and Mississippi rivers, will compel the owners of steamboats navigating those streams to resort to the use of coal.

The same causes will induce the large sugar establishments on the Mississippi to substitute its use for that of wood. These considerations, in connection with the increasing demand for coal at New-Orleans and other points on the Mississippi, for domestic, mechanical and steamship purposes, have induced many enterprising capitalists to embark in coal operations in the West. Companies have been, and are now forming, to open and work extensively the mines on the Ohio and Mississippi rivers and their tributaries; and there is no doubt that their labors will develop one of the most extensive coal regions on this continent, and at the same time afford those who engage in the business a profitable remuneration for their outlay of capital. At present, the capital employed in mining is but trifling, in comparison to the importance of the object, and the working has been confined generally to the upper strata. When the mines have been further worked and more deeply penetrated, doubtless in many instances the coal yielded will be of a superior quality to that now taken from the surface. All the coal examined by us in the West burns remarkably free. The coal in the neighbourhood of Pittsburg is generally esteemed the best, and bears handling and transportation without crumbling, which, by-the-by, is a characteristic of all western coal that came under our observation. One of the principal reasons why the Pittsburg is esteemed the best, arises from the fact that the mines have been more extensively worked than any others in the valley of the Mississippi. There is no doubt that the coal at other points on the Ohio and Mississippi and their tributaries, when the mines are properly developed, will be equal in every respect to what is known as Pittsburg coal. There are some mines, of which we will speak hereafter, which, according to our judgment, produce coal equal to any found as yet in the western country.

There are extensive coal-fields in the neighborhood of Wheeling, in Virginia, on both sides of the Ohio River. The quality of the coal is not esteemed as highly as that of Pittsburg, but answers for all domestic purposes, as well as some branches of manufactures. The Pittsburg coal is generally used at Wheeling for manufacturing purposes.

An extensive manufacturer has opened a new vein, which he informs us produces coal, superior for many purposes to that of Pittsburg. There is little or no coal shipped down the river from Wheeling.

At Pomeroy, in Ohio, coal is found in great abundance on the banks of the river, and the workings are very extensive, supplying nearly all the passing steamboats. The mines, in connection with salt works, are owned by a company who are said to realize large profits. The coal resembles that found in the neighborhood of St. Louis and in Illinois.

On the opposite side of the river, in Kentucky, several workings of coal have been commenced. Of the character of the coal we had no opportunity of judging, but from the formations, it will doubtless be similar to that found at Pomeroy and its vicinity.

In the vicinity of Gallipolis, in Ohio, it is said coal of a superior quality is found in large quantities. In consequence of the mines being off from the river, we did not visit them. A railroad is in progress of construction from the mines to the river, by means of which the proprietors will be enabled to furnish the coal with greater facility.

On the Elk river, in Virginia, is found the purest cannel coal we have ever known. Specimens are in the Department and at the navy-yards at Norfolk and Washington. The only obstacle to its introduction into general use is the difficulty encountered in getting it to market. When we were at Louisville, a boat load of this coal arrived which had been eighteen months on the way. We saw some of it used, and it was the most beautiful fuel we have ever seen. It commands in that market from two to three cents more per bushel than Pittsburg or any other coal. We had no opportunity of testing its quality for steaming purposes. If it could be brought to market with facility it would certainly supersede all others for parlor use.

Near the region of the Kanawha River large deposits of coal are found, partaking of the character of that on the Elk River, which is a tributary of the Kanawha. The difficulty of getting it to market is a serious obstacle to its general use. Arrangements are being made by capitalists to work these mines extensively, and it is hoped they will surmount this difficulty.

The Cannelton coal mines are on the Ohio River, in the state of Indiana. As our instructions required a particular examination of the rivers in this region, we endeavored to get all the information in relation thereto in our reach. We examined several openings of these mines which have been worked at "a royalty," or mining privilege of one cent. per bushel. The strata are about four feet thick, and formed of two distinct kinds of coal; the upper part bearing a strong resemblance to the cannel coal, and the lower portions resembling the Pittsburg deposits. The upper portion is a light chaffy, free-burning coal, with little durability. When we left the mines, one hundred bushels were placed on board the steamboat, so that we might test it practically. The result was favorable to its use on sea steamers. Any quantity of the coal can be obtained with the greatest facility at the mines, at a price varying from five to six cents per bushel. The coal from the lower portion of the vein we selected to be sent to Pensacola, not knowing that the period of delivery by contract had expired.

We would, however, recommend that the period for the delivery be extended, so that a fair experiment can be made with the coal on board of a government steamer. The coal produced from these mines has been tested by the late Professor Johnson, and his analysis is known to the Navy Department.

At Hawesville, Kentucky, opposite Cannelton, coal is found in great abundance, of the same description and quality as that of Cannelton. The mines are now being worked, and the passing steamers furnished with it.

The Saline coal mines, in the State of Illinois, on the Saline River, are most advantageously situated for the supply of passing boats, having a fine harbor. The coal beds are said to be a portion of the great Illinois coal field. The character of the coal is said to be good, and the geological surveys represent six distinct strata, the lower one of which is seven feet thick.

The Mulford mines, two miles above Trade Water Creek, in the State of Kentucky, are conducted on an extensive scale by the enterprising proprietors, and with great system. The passing boats can get supplied with certainty, and large quantities are sent to New-Orleans and other points. These mines have the same distinct strata as those on the Saline River. In one of the mines there is a peculiar formation: sulphur is found in large lumps, almost pure. It is separate from the coal.

The mines of the Hon. John Bell, on Trade Water Creek, in Kentucky, about one hundred and twenty miles above the mouth of the Ohio, are extensively worked, and yield a large profit. The distinct strata developed at the Saline mines are peculiar to these. The coal is of an excellent quality, and, from the tests to which we subjected it, we consider it well adapted for steaming and manufacturing purposes. There is a greater density about it than the Cannelton coal, and it makes a better hollow fire. We would respectfully suggest that some of this coal be sent to Memphis for smithing purposes.

Mount Carbon coal mines, in Jackson county, Ill., are situated on Big Muddy River, a tributary of the Mississippi, about seventy miles above the mouth of the Ohio. They are not now in operation. The vein of these is about five feet thick, running into the side of a hill, having a thinner vein above, and we think one below the present opening. From the opportunity we had of examining this deposit, which is extensive, it is not doubted that the coal is of a superior quality. As Prof. Johnson, B. Silliman, Jr., and Mr. David Mushet, have each given a scientific analysis of it, we will not attempt to give a description of its peculiar properties.

The mines are fifty-six miles from Cairo, by the Central Road, terminating at that point. A rail-road, thirteen miles in length, would bring this coal to market at a navigable point on the Mississippi River in large quantities. The proprietors have not found it convenient to make this improvement. There is a small tract near the Mount Carbon coal-fields, which is an outcropping of that vein. Two of the small veins in this tract are now worked, and the passing boats and the St. Louis market supplied when the state of water in the Big Muddy River will allow it to be floated down.

In Calloway county, in the State of Missouri, there is a remarkable coal-field of cannel formation. The vein is reported to be of great thickness, inexhaustible, and is situated but a few miles from the river. The coal lands are owned by a company of Eastern capitalists, who have built a rail-road to the river, (Mississippi,) and will in a short time have the coal in market.

We did not visit the vein in consequence of the low stage of water above St. Louis. We saw specimens of it, and it is equal to the Elk River coal, which is the best that came under our observation.

The coal about St. Louis, on both sides of the river, is of an inferior quality, and only used to any extent for domestic purposes.

The gas works and principal manufactories at St. Louis use the Pittsburg coal, or that brought from the Big Muddy River.

In consequence of the low stage of water, we could not visit the coal lands in Tennessee; but, from all we could learn, the mines on the Cumberland River, and at other points, yield coal of the character and description generally found in the Western country.

The transportation of coal on the Ohio and Mississippi rivers and their tributaries is by flat boats, containing from 10,000 to 12,000 bushels, or from 300 to 400 tons. These boats are floated in pairs to New-Orleans and the intermediate points when there is a high stage of water, which is generally in the spring and fall seasons.

Coal is usually sold at New-Orleans by the barrel, the price varying from 30 cents to 75 cents per barrel, depending altogether upon the quantity in market and the demand. We had propositions to deliver coal of good quality at New-Orleans at $3 68 per ton of 2,240 pounds. It can be delivered on shipboard at New-Orleans for from $3 68 to $4 50 per ton. At Memphis, we do not think the maximum cost would exceed $3 68 per ton.

The cost of transportation from New-Orleans to Pensacola we had no positive means of ascertaining, but from the best information we have been able to obtain, we should think it would cost from $2 50 to $3 per ton.

So soon as the coal companies now being organized in the West are in full operation, other modes of transportation will be adopted, which will necessarily reduce the cost of coal at New-Orleans.—[*Jamison & Sewell's Report.*

Art. I.—THE COTTON PLANT.

SOILS.—Of these there were three varieties, marked A, B and C, each variety being illustrated by two samples, one supposed to have been taken from the surface, and the other from a depth of ten or twelve inches.

Soils A and B are supposed to illustrate the average cotton soils of the Sea Island plantations, of which it may in general be remarked, that they are of the very highest description. The basis, and, indeed, almost the sole mineral constituent, is a fine, siliceous sand, precisely identical with that which forms the sand beaches of our sea coasts. They are enabled to support vegetation by the presence of a trifling proportion of aluminous earth, of oxide of iron and vegetable matter, to which are added small quantities of the carbonates of lime and magnesia, and traces of phosphates and sulphates of the same basis, and of alkaline carbonates; all of which, taken together, fall considerably below 10 per cent. The alumina, the oxide of iron, andthe organic matter, perform an important service in the soil, by rendering it binding, and retentive of the moisture and gaseous matter which are essential to the nutrition of plants; while the salts enumerated, either wholly or in part, enter also into the general circulation of the vegetable growth, and are more or less there detained, as indispensable constituents of the same. But it is also clear that a soil thus constituted would be unfit for supporting vegetation, except for the fact that it is situated directly contiguous to the sea, and in a temperature nearly tropical, thus giving rise to an atmosphere perpetually loaded with moisture.

Compared with inland and river-alluvion soils, the character of the Sea Island soil is very remarkable. The former rarely have more than 65 per cent. of silica, while their alumina and oxide of iron together, often mount up to 10 or 12 per cent., and the proportion of organic matter and hygrometric moisture to 12 or 15 per cent.

This contrast will indicate the direction in which the efforts of the planter should be made for the improvement of the Sea Island soils. Every addition he can afford to make of alumina, oxide of iron, and organic matter, will raise the character of his soils. The following researches will also afford hints respecting other ameliorations of his processes which lie within his reach.

It will be borne in mind that the analyses commence with the soil, after the withdrawal of the feeble trace of soluble matter which it contains, and after it has been rendered perfectly dry in the heat of the sun. The soluble matter consists of the chlorides of potassium, sodium and calcium, and of the sulphates and carbonates of potash and the sulphate of lime—in all, probably not equaling one part in a thousand of the soil.

There was but a slight difference between the two varieties of soil A. One exhibited a light cinnamon-gray color, the other was cinnamon-brown. The latter had a little more organic matter, and had more of its oxide of iron in the condition of a carbonate than the former. On heating either of these soils to redness in a porcelain capsule, it quickly turns black for a moment, emits a slight odor, resembling that from burning peat, but unattended by smoke. This black color, which proceeds from the charring of the organic matter, soon disappears, and the soil assumes a yellowish brown color. In this process we only obtain faint traces of ammonia, compared with what is exhibited by rich inland soils. One hundred grains of the sun-dried soil A, gave

Silica, (in the form of fine sand)	92.85	
Water, (hygrometric moisture)	2.50	
Organic matter, (mostly vegetable)	2.75	
Alumina and peroxide of iron, the latter containing traces of phosphoric acid	1.40	
Carbonate of lime and magnesia	0.50	
		100.00

SOIL B.

Silica	91.73	
Water	2.50	
Organic matter	2.75	
Alumina and peroxide of iron, with traces of phosphoric acid	2.30	
Carbonate of lime and magnesia	0.72	
		100.00

SOIL C.—This soil differs strikingly from the foregoing, containing, as it does, an excess of organic matter, and, in consequence, possessing a much higher retentive power for moisture. It is noticeable, also, that the silica, or sand grains, are more easily cleared of the adhering oxide of iron by the action of acids. Indeed, they can be washed clean with warm water only, while the same effect is, with difficulty, produced with dilute acids even; an actual adhesion seeming to exist between the impalpable oxide of iron and alumina, and the sand grains, thus admirably adapting such soils to the purposes of vegetation the more they are worked, and the more they are enriched with marsh-mud, which it will be seen abounds with oxide of iron.

Silica	87.53	
Water	3.50	
Organic matter	7.50	
Peroxide of iron, (which in the soil must have existed as carbonate of iron)	0.60	
Alumina	0.12	
Carbonate of lime	0.30	
Carbonate of magnesia	0.45	
		100.00

I should suppose that this soil is not at present adapted to the cotton plant. The organic matter is in excess, and in quality it is too nearly allied to that found in peaty land. Thorough drainage, successful cropping with corn, with the addition of the marsh-mud and artificial manures, might prepare it for cotton. This opinion, however, is advanced with reserve, being wholly suggested by chemical theory, and may therefore require considerable modification in practice.

I notice that the carbonate of magnesia is more abundant in this soil than in A. and B. This suggests the idea that magnesia may be an important ingredient in the cotton plant, even when compared with its sister element lime; for soils which have been under long cultivation in cotton, although they still contain magnesia, nevertheless contain less of it than this newer and more unexhausted soil presents. It occurs to me, also, that one peculiarity of the Sea Island cotton may be owing to the larger proportion of magnesia in sea-shore soils, this element being ever plentifully derived from the waters of the ocean, in which, in one form or another, it is ever found dissolved.

MARSH-MUD AND MARSH-TURF.—The specimens analysed were first thoroughly sun-dried. No sensible difference subsisted between them, except in the proportions of organic matter, and adhering or hygrometric moisture in the 100 parts.

	Marsh-Mud.		Marsh-Turf.
Water	19.56		25.50
Organic matter, (mostly vegetable)	3.50		10.00
Silica, (very fine sand)	67.50		
Carbonate of iron	4.75		
Alumina	1.50		
Carbonate of lime and magnesia	1.64	Soluble substances either in water, or in water containing carbonic acid.	
Phosphate of lime and magnesia	traces		
Chloride of sodium, (common salt)	0.45		
Chloride of potassium	0.01		
Chloride of magnesium	0.05		
Sulphate of lime and magnesia	0.05		
	99.01		
Loss	0.99		
	100.00		

The marsh-mud, before drying, contained 70 per cent. of water. In the process of sun-drying, therefore, it loses half its weight of water.

The marsh-turf, before drying, was found to contain 58 per cent. of water. In the process of sun-drying, therefore, it loses 33 per cent., or one-third its weight of water.

This consideration suggests that under some circumstances a saving of labor might be made in the transportation of these *articles* in a dry state, which might be effected perhaps by throwing them up into heaps, near the marshes where obtained, and there allowing them to weather and dry, under a roof of boards, to exclude the rain. There can be no doubt, also, that if the marsh-mud and turf could be to a degree pulverised and composted with other materials, and in this condition uniformly spread over the cotton lands, a decided advantage would be gained in planting.

We are now prepared to comprehend the uses of marsh-mud and turf. In the first place, the carbonate of iron, when blended with the soil, (in considerable quantity), slowly turns into peroxide of iron, with the extrication of nearly one-third its weight of carbonic acid, (which, it will be kept in mind, is the chief aliment of vegetation,) the peroxide of iron acting together with the alumina as a cement or binder to the loose grains of sand, and as an attracter of moisture and a retainer of nutritious gases. In the next place, the soluble substances present in the marsh manures, are all of essential consequence to vegetable life; not to omit the organic matter, which is very considerable, and in the case of the marsh-turf, is very abundant, thus giving, as might be supposed, a preference to this over the marsh-mud, unless the difficulty of reducing it to a powder, and of incorporating it with the soil, presents an obstacle which overbalances the advantage arising from this superabundance of organic matter. Finally, it may be added, that the silica or sand in the marsh manures is in a more comminuted condition than that in the soil, and therefore serves an important purpose in rendering the land to which it is added closer and more retentive of moisture.

The question may now arise, can the planter with advantage substitute any artificial manure or mixture for that of the marsh soils? The quantity of saline matter in it is certainly small, only about six pounds of common salt to the ton, about one pound chloride magnesium, and one of the sulphates of lime and magnesia; of insoluble constituents, twenty-three of carbonates of lime and magnesia to the same weight, and not far from 250 lbs. of good white clay. Of these ingredients all but the clay could be cheaply obtained; nor would this be very expensive, as it exists in great quantity near Augusta, contiguous to the Savannah River; but I apprehend the great difficulty would still remain, and which would be nearly fatal to the use of the mixture. This would consist in its uniform application to the soil. In some cases it would be in excess, and in others in a corresponding deficiency; whereas applied as at present, in a copious vehicle of fine sand, its good effects are every where visible. It may be concluded, therefore, that the Sea Island planter is in no danger of using the marsh manures to excess, nor have we any intelligent grounds for thinking that any substitute will ever be discovered, which shall render their employment superfluous.

Analysis of the Cotton Plant.—Two varieties of the plant were submitted for analysis, but no perceptible difference could be detected in their chemical composition.

A perfectly sun-dried plant, in which all the parts were present, excepting only the cotton-wool and seeds, was made the subject of analysis. Parts in due proportion from the root, the stem, the leaves, and the pod, were selected for incineration.

In drying, at a temperature of 320°, these parts of the cotton plant lost 15 per cent. of water, and gave a white ashes which weighed 2.75 on the 100 grains of the dried plant. But of this 2.75 grains, 0.30 was separated in the condition of fine sand, which must have been adhering mechanically to the plants, thus leaving 2.45 per cent. of ashes of this; 1.0, (or about two-fifths) was soluble in water.

The result of the analysis when the carbonic acid was deducted, which it is plain did not exist in the living or the dead plant previously to its combustion, may be stated as follows—leaving out also the water of absorption, and presenting the acids and basis in their uncombined state:—

Lime and magnesia, (mostly the former)	44.50
Potash and soda, (mostly the former)	27.50
Phosphoric acid	16.50
Sulphuric acid	6.50
Silica	1.80
Chlorine	1.50
Potassium and sodium	1.70
Oxide of iron in traces	99.90

Cotton Fabric.—Two varieties were analysed, but without detecting any chemical difference between them. Water [or hygrometric moisture], 7.5 per cent. White ash, 1.2 per cent. One third of this was soluble in water; but of the insoluble portion, from 12 to 15 per cent. was fine sand, which was obviously a mechanical impurity, thus leaving 40 parts soluble, to 60 insoluble in the ash. Deduction being made for the adhering sand therefore, we may set it down as a very close approximation, that every 100 lbs. of cotton contains one pound of the following substances, each in the proportions of the figures here set down against their names respectively:

Lime and magnesia, (mostly the former)	39 66
Potash and soda, (mostly the former)	28.50
Phosphoric acid	18.80
Sulphuric acid	5.80
Silica	2.00
Chlorine	1.75
Potassium and sodium	2.00
Oxide of iron in traces	98.51

COTTON SEED.—Two varieties were examined, but without essential differences. By drying, 100 grains lost 5.3 per cent. moisture, and the thoroughly charred residuum (the heating being effected in a nearly tight crucible, after the flame from the burning of the oil went out), weighed 23 grains. This coaly residuum, when burned into a white ash, weighed 4.2 grains in one variety, and 4.3 in the other. In the former, 3.1 grains were insoluble, and in the latter, 3.4 grains were insoluble. The ash in both cases gave—

Lime and magnesia, (mostly lime)	26.50
Potash and soda, (mostly lime)	17.50
Phosphoric acid	47.75
Silica	traces
Sulphuric acid	4·75
Chlorine	1.25
Potassium and sodium	1.75
	99.50

I satisfied myself that the cotton seed contained no sensible quantity of nitrogen—a point of some importance, as it had been suspected that its use as a fertilizer was analogous to that of some of the oleaginous seeds. The cotton seed, therefore, unlike to rape and flax-seed, is extremely deficient in albumen. As a manure, it is obvious that its use consists in its richness in the phosphates of lime and magnesia, and of potash and soda.

The following is a comparative table of the results obtained in these analyses of the cotton plant:

	Plant.	Fibre.	Seed.
Lime and magnesia	44.50	39.66	26.50
Potash and soda	27.50	28.50	17 50
Phosphoric acid	16.40	18.80	47.75
Sulphuric acid	6.50	5.80	4.75
Silica	1.80	2.00	traces
Chlorine	1.50	1.75	1.25
Potassium and sodium	1·70	2.00	1.75
	99.90	98.51	99.50

We are fully authorized in regarding each of these ingredients (however small their proportions), as essential to the cotton plant. Some of them are abundant in the soil, and scarcely require to have the supply increased; such, for example, are silica, lime, magnesia, and chlorine; while, on the other hand, there is a deficiency of phosphoric acid and potash, possibly also of sulphuric acid. These deficient elements, moreover, are in the rapid course of exhaustion, especially where the cotton seed is not returned to the soil, but employed on other lands devoted to the food-crops.

I should therefore strongly recommend to the cotton planter the following artificial manures:

First of all, the super-phosphate of lime mixture of Prof. Mapes. It is composed of 100 lbs. bone dust, 56 lbs. sulphuric acid, 36 lbs. Peruvian bark, 20 lbs. sulphate ammonia.

Secondly, wood ashes; and the more these are mixed with charcoal (if in a somewhat pulverized condition, in which state it is a valuable condenser of moisture and nutritive gases) the better.

Thirdly, compost, formed, as far as possible, of the following materials: stable manure, forest leaves, straw, (small quantities, perhaps, of rice-chaff,) saw-dust, sweepings of houses and cabins, rubbish of old clay and plaster walls, lime, refuse of gas works from Charleston, soot, drainings from stables and gutters, soap-suds, and refuse saline liquids of all kinds.

It does not appear to me that the cotton lands require either quick-lime, common salt, or gypsum. They certainly will not need the last mentioned fertilizer, if the improved mixture of Prof. Mapes is employed.

The more perfectly the compost is worked up together, and reduced by decomposition to the character of a powder, the better will be the effects it is capable of producing. If it could be treasured up for years, partly under the protection of a roof, and guarded from the action of the sun, its value would still be more highly enhanced. C. U. S.

Charleston, April 8th, 1853.

Art. II.—THE PROGRESS OF FRANCE.

The census of 1851, the *Moniteur* says, is the eighth which has been taken in France since the commencement of this century. An examination of the tables transmitted by the prefects shows that the population of our country last year was 35,781,628 souls; and that it has increased since 1846 by 381,142, or 76,228 per year. This is an augmentation of 1.08 per cent. for the entire quinquennial period, and of little more than 0.21 per cent. per year. This augmentation is notably less than that which has been successively reported in previous censuses, as will appear from the following tables:

Years.	Population.	Increase.
1801	27,349,003	
1806	29,107,425	1,758,422
1821	30,461,875	1,354,450
1831	32,569,223	2,107,348
1836	33,540,910	971,687
1841	34,240,178	689,268
1846	35,400,486	1,170,308
1851	35,781,821	381,335

RATE OF INCREASE PER PERIOD AND PER YEAR.

	Per Period.	Per Year.
From 1801 to 1806	6.43 per cent.	1.28 per cent.
" 1806 to 1821	4.65 "	0.51 "
" 1821 to 1831	6.92 "	0.69 "
" 1831 to 1836	3.00 "	0.60 "
" 1836 to 1841	2.05 "	0.41 "
" 1841 to 1846	3.42 "	0.68 "
" 1846 to 1851	1.08 "	0.21 "

It is natural to inquire how so sensible a diminution in the increase of the population of France has been caused. A few words on this subject:

The examination of the annual reports of marriages, births and deaths, shows that during the five years from 1846 to 1850, the number of births exceeded that of deaths by over 500,000; that is to say, the population was increased by this single cause over half a million of persons.

If the census had been taken with perfect accuracy; or, rather, if the immigration and emigration had not affected the normal movement of population by the introduction of new, and in some sort disturbing elements, the same increase might have been reported for 1851. But, independent of the fact that the result of the census cannot be considered as a very exact statement of the truth, it is certain that from 1846 to 1850, the amount of emigration was worthy of remark. Thus, a single department, that of the *Basses Pyrenees*, lost during that period nearly 11,000 of its inhabitants, a large portion of them having embarked for South America, while twenty other departments (a circumstance which has not before occurred) have also seen their population diminish, and nearly all from the same cause.

This lively impulse given to emigration is owing in a great degree to the events of 1848; to the commercial crisis which they occasioned; to the uncertainty of the future, which pressed upon all business transactions from 1848 to 1852; and, also, in some measure, to the discovery of the California gold deposits, and the progressive pacification of Algeria.

But even if the census of 1851 had faithfully reported the increase of population resulting from the excess of the number of births over that of deaths; and if emigration had not also diminished the general result, this increase would still be much less than that presented by any previous census. This is explained both by the diminution in the number of marriages, and consequently of births, from 1846 to 1850, and by the ravages of cholera in 1849. Thus it is seen by the study of official documents, that the number of marriages, after rising in 1846 to 268,257, fell in 1847 (a year of dearth) to 249,486; and that in 1848 it increased again, and rose to 293,691, to fall back again in 1849 and 1850, sinking this last year to 245,411,—the smallest number which has been reported for a long period. In other words, the average number of marriages which from 1841 to 1845 reached 280,000, amounted from 1846 to 1850 to more than 266,000.

The number of births which, during the first of these two periods, had exceeded the number of deaths by 918,512, presented during the second period a corresponding excess of only 512,000. This diminution is attributable alike to the great mortality reported as well for 1847 as for 1849, and to the diminution in the number of marriages.

The diminution in the increase of population reported in the census of 1851, is then sufficiently accounted for by political, social, commercial, and other facts, which have occurred in France since 1846; without its being necessary to recur for explanation to the supposition of grave inaccuracies in the results of the census itself.

The Lutherans, or members of the Evangelical Church of the Confession of Augsburg, number about one third of the Protestant Christians of France. They are located principally on the German and Swiss frontier, in the departments of Bas-Rhin, Haut-Rhin and Doubs. In the city of Strasbourg (Bas-Rhin) alone, they count 30,000 members. There are 15,000 of this persuasion in Paris. They have 245 pastors, all of whom, except eight in the department of the Seine, reside in the easternmost departments of France.

It is in the department of Gard that is found the greatest variety of religious sects. Beside the Calvinists, we find there Methodists, Quakers and Darbists.

The annual sum appropriated by the State to the support of religion is $7,837,014, and thus distributed: Roman Catholic worship, $7,436,443; Protestant Christian, $238,528; Jews, $28,539; Algiers, $98,773; expenses of central administration, $48,922.

In an article on the organization of religious worship in France, published in the *Revue des Deux Mondes*, M. Vivien estimates the number of Protestants in France at 1,500,000. The two sects of Protestant Christians which are deemed of sufficient importance to be allowed a share in the appropriations annually made by government for the support of religion, are the *Calvinists* and the members of the Evangelical Church of the *Confession of Augsburg*. The Calvinists have 511 ministers resident in 62 of the 86 departments. These ministers serve 600 temples, or places of worship, of which 121 are in the single department of *Gard* in the south of France, and 68 in the adjoining departments of Drome and Ardeche. The Calvinists, or Reformed Protestants, are most numerous in the southern, south-eastern and south-western departments.

The following is a statement of the number of rail-roads completed and in operation in France; of those which are commenced, and partially in operation; and of those for which charters have been granted since the 2d December last.

RAIL-ROADS COMPLETED AND IN OPERATION.

	Miles.
1. The Northern and its branches	368
2. Paris, Rouen, Havre, and Dieppe	179
3. Paris to Orleans	76
4. Tours to Nantz	122
5. St. Etienne to Lyons	35
6. Strasburg to Basle	86
7. Avignon to Marseilles	75
8. Monterau to Troyes	64
9. Montpelier to Nismes	32
10. Amiens to Bologne	77
11. Paris to St. Germain	13
12. Paris to Versailles	11
13. Paris to Versailles, (left bank of Seine)	10
14. Paris to Sceaux	7
15. Bordeaux to La Teste	32
16. Montpelier to Cette	17
17. Gard Rail-road	57
18. St. Etienne to the Loire	13
19. Andrezieux to Ronne	44
20. Mulhous to Thann	13
Total	1,331

RAIL-ROADS COMMENCED AND PARTIALLY IN OPERATION.

Central Line.—In operation from Paris to Nevers and Chateauroux, or 151 miles.

Orleans and Bourdeaux Line.—In operation from Orleans to Poitiers, or 135 miles.

Paris and Strasburg Line.—In operation from Paris to Bar-le Duc, 159 miles; from Sarreburg to Strasburg, 44 miles; and from Nancy to St. Avold, 67 miles; making in all for this line 270 miles.

Paris and Lyons Line.—In operation from Paris to Chalon, or 248 miles.

Western Line—In operation from Paris to Chartres (not including the line from Paris to Versailles) 44 miles.

The whole length of road in operation on these five lines is thus 843 miles.

RAIL-ROADS CHARTERED SINCE DEC. 2, 1851.

Northern Company.—From St. Quentin to the Belgian frontier, distance 53 miles; to be finished in four years. From Cateau to Louvain, distance 24 miles; to be finished in six years. From La Fere to Rheims, distance 50 miles; to be finished in nine years. From Noyelie to St. Valery, distance 3 miles; to be finished in four years. Total for this company, 130 miles.

Central Company.—From Bec-d'Allier to Clermont, distance 101 miles; to be finished in two years. From Chauteauroux to Limoges, distance 89 miles; to be finished in four years. From Poitiers to Rochefort and to La Rochelle, distance 106 miles; to be finished in four years. From St. Germain-les-

Forets to Roanne, distance 41 miles; to be finished in four years.—Total for this company, 337 miles.

Strasburg Company.—Branch from Metz to Thionville, distance 34 miles; to be finished in four years. This company has also guaranteed the road from Blesmes and St. Dizier to Gray, distance about 94 miles.—Total for this company, 128 miles.

The company chartered to construct the rail-road from Dijon to Besançon, distance 56 miles, is to finish it in three years.

The Gray Branch, length 24 miles, is to be finished in three years.

The construction of a rail-road from Doles to Salins, a distance of 23 miles, has been granted to a private individual.

The Circular rail-road, which is to go round Paris for the purpose of connecting all the Paris stations, is to be finished within ten years.

The Rail-road from Lyons to Avignon was chartered before the 2d of December, and is to be about 144 miles in length. There are also about 79 miles to be completed in the Paris and Lyons line.

To the number of rail-roads completed and in operation should be added 13 connected with the various mines, and embracing in the aggregate an extent of about 88 miles.

From the above statements it will appear that the whole extent of rail-roads in actual operation in France at this time is 2262 miles; and that charters have been granted to rail-roads which are to be completed, for the most part within four years, to the extent of about 921 miles.

In France, all the rail-road companies have received more or less assistance from the State. This assistance has sometimes been granted in the form of a subvention, in money or works on the road; and at others in the form of a loan. Up to Dec. 31st, 1851, the State had contributed towards the twenty-five principal rail-road lines and branches about $66,293,000 in money or works; and about $11,000,000 in loans. The amount of shares taken by private individuals in the same companies, was about $137,466,000; and the amount of money borrowed on company obligations, $24,710,000.

Art. III.—THE QUEEN'S DREAM.—A SEQUEL TO "UNCLE TOM'S CABIN."

THE British correspondent of the New-York Herald furnishes the following sketch, which, he says, has lately been published in England. Whilst American traitors are traducing their country abroad, foreigners themselves are coming to its relief. So let them fight the battle out. The subject is threadbare with us, though the present sketch combines many things that are striking and instructive, and we cannot do better than insert it.

SCENE—*The emerald drawing-room in a Palace of Freeland (England), the walls adorned with portraits of the philanthropists of all nations; also, with two remarkable paintings: one showing Howard, the illustrious prison reformer, administering consolation to the tenants of a loathsome dungeon; the other, representing* JOHN POUND, *a humble cobbler, in his habit when he lived, seated on a three-legged stool, teaching little ragged boys and girls to read, so that they might better find their way to their Heavenly Father.* PRESENT—*The Queen of Freeland, surrounded by the Ladies of her Court, weeping and sobbing.*

FIRST LADY, (*who has just finished reading a novel called "Uncle Tom's Cabin."*)—Can such things be, and overcome us like a summer's dream?

SECOND LADY.—It almost surpasses beief!

THIRD LADY.—That monster, Legree!!

FOURTH LADY.—That sainted martyr, Tom!

FIFTH LADY, (*hysterically.*)—That darling Eva!

QUEEN, (*who is young and beautiful, and has a very silvery voice.*)—Such scenes of life are horrible! I would not be monarch of that realm in its present state for all the glory of the undisputed sovereignty of the universe!

SIXTH LADY, (*old, and supposed to be light-headed.*)—May not the description have been over-colored?

QUEEN, (*sadly.*)—I fear not. My archbishops, bishops, ministers of state, and privy councilors, all concur in stating that negro slavery is one of the great sins of the Western world. But I never knew before that its features were so utterly repulsive. I wish, my dear Duchess, I had never asked you to read the book.

FIRST LADY.—Rather rejoice, your majesty; since the information you have obtained will enable you to protest against the iniquity.

QUEEN.—No; I am queen only in my own realm! And if I were to protest, or even implore, the appeal would be useless. The intercommunication between States is founded on expediency, not sound moral principle.

SECOND LADY.—Suppose the ladies of your court and empire were to send a pathetic address on the subject to the ladies of the West. I have heard that woman's voice, when raised in the cause of humanity, rarely falls unheeded on the ears of even the sternest of the opposite sex; and surely our sisters will not refuse us a patient hearing.

FIRST LADY.—I cordially approve of the scheme, and intended to have suggested it to your majesty myself.

LADIES, (*in zephyry chorus.*)—So do all of us!

QUEEN.—Do as you like—you have my permission! But be loving and kind in your language; for if our land be the blessed abode of liberty and happiness, we should not forget that the lands in which the negro is held captive have not had, like us, the advantage of the experience of a thousand years of monarchical and Christian rule.

[*Exeunt Ladies, in agitation.*]

[*The* QUEEN, *taking up* "*Uncle Tom's Cabin.*"]—Morning, noon and night, I am thankful that the air of Freeland is too pure for a slave. If I thought there was one in my dominions, I would tear the jewels from my crown to buy his ransom. But there is not; it is only in the land of the West that liberty is profaned by traffic in the life that only God can give, and only God should use and take.

[With this queenly reflection her majesty began to read, until at length overpowered by the emotions the contents of the book had excited, she fell into such a deep study, that the shadows of the world gathered around her lovely head, and gently closed her cerulean eyes. Her cheek fell into the hollow of her lily hand, and resting on her elbow, buried in the cushions by her side, she slept. While slumbering, strange sights, stupendous doings, awful revelations, crowded upon her soul.]

THE DREAM.

"The air of Freeland is too pure for a slave!" thought she, as, seated on her burnished throne, she gazed around her in all the swelling pride and consciousness of august superiority.

"Queen, behold thy people!" sounded a sonorous voice in her ear.

Her large blue eyes opened as by enchantment, and, looking around her, she beheld a glittering throng of familiar faces. The proudest and most beautiful of the land swept before her in gorgeous array. Costly jewels blazed on alabaster arms, while diamonds flashed glory across brows of marble, and shed splendor on necks majestic in their haughty curvature. Contempt of all things, low or little, darted from the eyes of this moving mass. Their every gesture betrayed an innate sense of power, and exultation over the traditions of an ancestry unsullied by poverty. They were of the race

> Of the lofty brow, th' imperial eye,
> The patrician lip that feeds on scorn.

The scene changed to one of gold. It was all gold. The gold was here, the gold was there, the gold was everywhere. The splashing, rolling, tumbling, jingling, and ringing of gold were terrific. Whichever way the eye turned was gold. The human beings themselves seemed gold. One, overgorged, parted in twain, and behold! his heart was crusted over with gold.

Rows of shops and piles of warehouses next crowded upon her view. They were the hives of the riches of the world. The produce of every clime, ennobled into usefulness by human labor and inventive genius, were here to be had for money. The great globe itself had been ransacked to furnish them; and their owners looked plump and comfortable. And well they might, for they were driving a roaring trade; had snug investments in stocks, rail-ways, and mines; and, at eventide, were whirled down to pretty Gothic cottages, overlooking

> Meadows trim, with daisies pied,

on

> Shallow brooks and rivers wide.

"These are the middle classes, who claim to hold the balance of power between the higher and the lower!" whispered the voice in her Majesty's ear. "They are the strength and glory of your nation, for they are the most industrious, the most moral, the most intellectual of the population!"

The monarch felt pleased: a smile lit up her expressive countenance—but only for an instant, for,—as

> Coming events cast their shadows before,

the radiance fled, and in the darkness she timidly asked:

"*Where are the people?* Where are the masses, from whose bosom I draw my soldiers, my seamen, my artificers, my laborers?"

Quicker than a flash of lightning they crowded upon her regal vision. Scores, torn to ribbons, lay scattered in rail-way tunnels, where they had fallen victims to human cupidity. A hundred, suddenly borne from their quiet beds by an avalanche of water, were hurried into eternity by human negligence. Sixties in one place, seventies in another, and dozens all over the country, the helpless victims of a remorseless element, lay in charred and blackened heaps, as sacrifices to human comfort, convenience and glory. They had perished, deep in the bowels of the earth, while hewing riches out of grim chambers for the advancement of mankind at large. They had warmed the hearts of millions, fed the engine that works the factory, ploughs the main, and heaps up a magnificence which

> Not Babylon,
> Nor great Alcairo, equalled in all
> Their glories.

And they died unmourned—scarcely remembered—by their accident-hardened kith and kin. While their requiem is sung in a casual paragraph, their elegy is written in a later and more appalling catastrophe, and so they are forgotten. No

> Ardenne waves above them her green leaves,
> Dewy with Nature's tear-drops;

although they died in a nobler cause than any that ever marshalled armies in

> Battle's magnificently stern array.

Their remains,

> In one black burial blent,

are consigned to oblivion; and the only harps that hymn their praises are steam-pipes, hissing and shrieking over land and sea.

The vision, as it deepened in horror, exposed the bottom of the sea, strewed with thousands upon thousands of corpses of true-hearted sailors. There they lay, in their fathomless graves, pale, mute evidence of the peril to be encountered in the pursuit of that commerce which covers the seas with ships, and brings the nations of the earth together. The ocean heaves hugely around them, exulting in its prey; while the millions who are clustered on the land little think that the cotton and silk they wear has cost the life of many a gallant seaman.

Her Majesty being queen of the main, shed bitter tears at this sad spectacle, and, turning her eyes to the broad expanse of ocean spread out before her gaze, saw it dotted with vessels, whose white sails glistened in the noonday sun.

The decks were crowded with human beings—men, women, and children—who had dared the perils of the storm, the sharp edges of unseen rocks, the lightning's blast, and the uncertain chances of fortune in a distant clime, in search of the daily bread they could not obtain in their own "dear native land."

"Those are emigrants from your dominions," whispered the voice in her ear, three hundred thousand of them annually leave your shores to enrich that great continent, now darkened by that slavery which your Majesty so grievously laments, but which at no distant day will control the destinies of the world. What Freeland discards as a surplus, it receives with the open arms of affection."

"The spectacle saddens me," said the Queen, "for I can read sorrow, deeply blended with hope, on the countenances of that ocean-bound multitude. The sacrifice of country, home, and friends, is not half redeemed by the prospect of a brighter future. Their hearts yearn after the ties they have left behind them, perhaps for ever. There is the husband thinking of his wife and little ones, the lover of his sweetheart, the maiden of her numberless sweet associations, and the lone man, with the ivy-shadow creeping into every cell of his heart, is covertly wiping away the tear shed over the only thing in life left him to love—his country. Sad—oh, frightfully sad—must be the necessity that drives so many true hearts away from my empire! Hark! the strains of music are wafted to my ears! They come on the sigh-laden air like a requiem for the banished living. It is

Home, home, sweet home!

and I see the decks are wet with tears, and that hearts are throbbing that never wished to throb again!"

One vessel in that mournful fleet filled her Majesty with vague but shuddering apprehension. She saw the clouds over its track in the distance had no silver lining. And as her eye pierced the dim vault of time, she read its destiny.

The moon hath twelve times changed her form,
From glowing orb to crescent wan,
'Mid skies of calm and scowl of storm,
Since from her port that ship hath gone:
But ocean keeps its secret well;
And though we know that all is o'er,
No eye hath seen—no tongue can tell
Her fate; she ne'er was heard of more!

Oh! were her tale of sorrow known,
'Twere something to the broken heart:
The pangs of doubt would then be gone—
And fancy's endless dreams depart!
It may not be:—there is no ray
By which her doom we may explore;
We only know she sail'd away,
And ne'er was seen nor heard of more.

Such was the grief song of friends left behind, but to the queenly gaze the veil of darkness was uplifted. Her Majesty saw the doomed emigrant ship, two months out of sight of land, and her hold was hot and vapoury. The shelf-like couches were occupied by the raving sick, and

In the dead waist and middle of the night,

a shriek from a fair young girl tells all the ship that her shame will never smile in her face again. It is gone, and in the morning it is cast into the sea to be food for the sharks. Another week out, and the mother is tossed overboard—more food for the sharks; and now the ship is swathed up in red, and from her depths ascend the wails of pain and the maddening cries of delirium—more food for the sharks. No water on board, but abundance of fever. The bread mouldy—the beef and mutton putrid—more food for the sharks—and the mate hoarse with reading the burial service. A black cloud gathers in the horizon, and the vessel plunges sheer over a gigantic wave.

A storm!

"Make all snug aloft! On with the hatches! Let her drive before it!" shouts the captain.

And as the wind howls and the lightning glares—

"Five feet of water in the hold!" whispers the carpenter.

"All hands to the pumps;" and the men passengers labor and sweat for beings dearer to them than life, until the flesh drops from their hands, and their hair whitens like the house tops on a moonless winter's night. The long-drawn cry of the agony of helpless women and children, suffocating below, rises above the storm, and as the whirling clouds and rolling sea blend their wrath, the wind and waves become wilder and wilder, madder and madder. One shout—one tremendous explosion of horror—shoots up to the starless firmament, and the emigrant ship has plunged, bow foremost, into the dark, deep, raging sea.

"Where are my people?" shrieked the Queen, horror-struck and appalled.

"Queen!" whispered the genius at her side, "you shall see them, and in a guise which subjects were never yet presented to a monarch; but to nerve your woman's courage for the presentation, let me tell you that although the world we live in has its bright and glorious aspects—although kindly feelings, pure desires, and holy passions march with us to our destiny, and heaven's gracious sunshine falls on all alike—there are those among us with bruised hearts, blighted hopes, and perverted instincts, whose way of life is either a curse or a crime. The stately buildings, the pomp and insignia of wealth, the regal magnificence of power, the landscapes glittering in their almost garden beauty, and the waving fields of God's food that surround us on every side, contrast so hideously with this awful condition, that you must be informed that there is a world within that which meets the dazzled eye of prosperity, of which no one knows aught, save those whom capricious fortune has doomed its inhabitants. The world is a

> ——frozen continent,
> Dark and wild, beat with perpetual storms
> Or whirlwind and dire hail—

wherein the tossed and troubled soul bewails the hour of its birth in the bitter language of despair. Those born in more genial social climes know nothing of this dreary existence. They never felt the pang that corrodes the heart, or the bitter woe that fires the brain as with a red-hot iron: or had to deplore the loss of a knowledge of the pure or true, or struggle with a life made up of fretful anguish, wounded delicacy, bruised sentiment, and that gnawing and increasing, though hopeless craving for those blessings which the human mind, in its lowest degradation, instinctively feels to be its heritage on earth. Believe it, most gracious Queen, that there are shadows deep and broad on the ground we tread; and the children of success, when they pursue their thousand different ways, are too apt to forget they are treading on the funeral pall of a multitude, whose hearts were never intended to beat only to the dirge of their own sorrows and miseries—to the wild, sad notes, breathing eloquent reproach, sent up from every corner of the land. This is a condition of existence as dreadful as the fabled one of Tantalus, and every feature of its wretchedness, every variety of which it is so susceptible, claims from your Majesty that consideration and affectionate attention which are based on the best, the warmest, the holiest feelings. The wrongs and sins of your empire start up in the gloom like

A forest huge of spears,

tipped with dark red fire. Behold them, as they appear before you, in grisly and ghastly array!"

The scene changed from the wide realm of Neptune to that of merry Freeland. Her Majesty saw pass before her, in close columns, the *élite* of her industrial population. First there came the men of thought, the men of action, and the throng who, wearing the garb of gentlemen, are presumed to be the most successful in the industrial struggle; but few were adorned with the coveted decoration of prosperity; the majority had care-ridden brows, sunken eyes, pallid cheeks, and those pursed-up lips, which seem nervously to hide the contention raging in the prison-house within. Urged on by hope, or goaded by despair, they pressed frantically forward, leaving in their rear a dismal train of beggars, maniacs, and suicides.

Then there came a mighty section of the more mechanical portion of the community. They were a stalwart race, with naturally intelligent and cheerful countenances; but when they glanced at the banner borne before them, their faces darkened, and they surlily, sometimes savagely, thrust the weaker out of their way. On the banner was inscribed the following instructive and warning summary:—

" Average wages of a skilled mechanic, 24s. per week, out of which he must make a decent appearance abroad, pay rent, buy food for his family, clothe them, educate his children—generally five in number—and out of the residue indulge in such luxuries as his conscience will allow him."

Then there came intermediate grades of employed mechanics and artisans, until the panorama ended in a squalid mob, who belonged to no particular trade, but hovered on the confines of every one, and starved on them all.

Then there burst on the startled royal vision countless masses who toiled from early morn to dewy eve, for a remuneration so attenuated that its recipients, in its distribution, every day accomplished miracles. The average for each head of a family, consisting of a husband, wife, and five children, was 15s. per week; out of which, in addition to being expected to furnish a satisfactory example of order and morality, the following disbursements were punctually to be made.—

Rent	4s. 0d.	Vegetables	1s. 6d.
Bread, 4 lbs. per diem, at 6d.	3 6	Milk	0 7
Oatmeal	1 0	Tea, sugar, &c.	2 0
Bacon, 4 lbs	2 0		
Sunday's joint	1 6	Total	16 5
" pot of beer	0 4		

Thus making an excess of expenditure over income of 1s. 5d. per week, without taking into consideration such necessaries as clothing or medicines, or such luxuries as books, newspapers, or periodicals; or such moral duties as self-improvement, or education of children. For all these there was provided a blank—a dead, soul-blighting blank.

These lived in towns and cities, and at their heels came a more squalid array, bearing before them the banner of their social condition, upon which was inscribed the following tabular statement:—

Rates of weekly wages paid for agricultural labor throughout "merry" Freeland:

Cumberland	13s. 0d.	Oxford	9s. 0d.
Lancashire	13 6	Gloucester	7 0
Cheshire	12 0	North Wilts	7 6
Derby	11 0	Devons	8 0
Nottingham	10 0	Norfolk	8 0
Stafford	9 6	Suffolk	7 0
Northumberland	11 0	Huntingdon	8 0
Durham	11 0	Cambridge	7 0
Yorkshire, West Riding	14 0	Bedford	9 0
" East Riding	12 0	Hertford	9 0
" North Riding	11 0	Essex	8 0
Lincoln	10 0	Berks	7 0
Warwick	8 6	Surrey	9 0
Northampton	10 0	Sussex	10 0
Bucks	8 6	Hants	9 0
Dorset	7 6	South Wilts	7 0

Average of northern counties, 11s. 6d.; average of southern, 8s. 5d.; average of west, 10s. 1d.; average of the east, 9s. 1d.; average of the whole 9s. 6d.

"How do they manage to exist upon such pittances?" was the sovereign's mental query; and the next instant a country village, infested by lank and hungry curs, came before her, and she saw

> A bold peasantry, once their country's pride,

at home, with only the beer shop for a lounging-place. Their aspect was defiant, truculent, half bashful, half savage. Their labor brought them only a pittance, and in their hearts they cursed that labor, and the soil upon which it was bestowed. The women in this sweet, rural spot, were thin and haggard—the children squalid—the cottages dirty. And, as if to heighten the contrast there, right against the brow of a finely wooded hill, stood a stately mansion—it was the landlord's! Some miles down the valley, close by a stagnant putrid ditch, stood a glaring brick edifice—it was the Union House, which opened its dismal doors to receive the rustic swain, the village belle, the humble field laborer, the hungry wrinkled wife, and the children that never were rosy, to pinch, starve, snub, crush and dehumanize.

The ghastly panorama then extended to one of those hives of industry which have made Freeland famous throughout the universe. The sky was obscured by the smoke of hundreds of small chimneys and vast edifices, stretched in lines for miles and miles. The latter were crowded with women and children, young in years, but withered in form and feature. The countenances of the men were as colourless as the white fabric in their looms. Their eyes sparkled with intelligence, but it was chiefly the intelligence of suffering, of privation, of keen sense of wrong, of inability to be better, of *rankling hatred* against existing institutions, and a furtive wish that some hideous calamity would bury them all in one common undistinguishable ruin.

"Are these the people?" groaned the Queen, as the cold damp of more than mortal agony moistened her marble forehead.

"Not all of them!" sounded the voice in her ear, so sharply, that her Majesty looked up eagerly, and saw written, in letters of fire, on the palace wall:—

1. *Every twelfth person in your dominions is a pauper, daily receiving parochial relief.*

2. *Every twentieth person in your dominions is a destitute wanderer, with no roof but the sky—no home but a prison. They are the Ishmaelites of modern society: every one's hand is against them, and their hands are against every one.*

3. *There are in Freeland* 10,748,747 *females: divide that number by* 500,000, *and you will find that nearly every twentieth woman in your dominions is—oh! horror, piled on horror!—a harlot!*

At this moment a thrilling episode occurred in the royal vision. The noblest of the rivers of Freeland, dotted with vessels from every clime, and spanned by bridges of magnificent proportions, came slowly on the scene. On one of the most splendid of the bridges, at the dead hour of midnight, a fair girl stood, with her white face turned upwards to the sky. She was very beautiful, but there was a slime in her loveliness; her once glowing cheeks were pale, and her eyes dim and lustreless. One prayer, one convulsive sob of regret for the past, and

Sheer o'er the battlements

she hurled herself into the muddy depths below. But little time had the sovereign for womanly sympathy, or to ask—

Who was her father?
Who was her mother?

for the solemn drama before her widened and deepened in horror. Behind the gorgeous splendor of the material greatness of Freeland, were the abodes of privation, festering depravity and crime. Mists and fogs crept upon the scene, but they wreathed themselves into appalling shapes. There was ignorance, lumpish, stolid, and stupid, but active for evil. There were fever and pestilence swathing up the homes of the industrious in clouds of blended red and black. Death hung on their rear, rattling his bones, and

Grinning a ghastly, horrible smile;

while deeper, darker, blacker, more hellish than all, Vice chuckled and slunk, drank and thieved, leered and wallowed, and in its frantic abomination, so dabbled and paddled in filth, that a merciful angel in heaven let fall a curtain, and the monster was hidden from the queenly gaze.

"Gracious lady," said the director of the vision, in solemn, touching accents, "it was womanly and noble in the ladies of your court to weep over the wrongs of the negro—such crystal drops become bright stars in the human firmament; but I must warn you that such sympathy is dimmed in the sight of an all-ruling Providence, when in your own land LIBERTY, the absence of which in another is deplored, is, in its most godlike developments, but a name—unless that may be termed liberty which, practically, is but vulgar licence: *licence* to work from rosy morn to dark midnight for the most scanty pittances; *licence* to store up wealth in the hands and for the benefit of the few; *licence* to bellow lustily for rival politicians; *licence* to send children to ragged schools; *licence* to sit in an ale-house; *licence* to grow lumpish and brutal; *licence* to neglect the offices of religion, to swear, to lie, to blaspheme; *licence* to steal, to pander unchecked to the coarsest appetites, to fawn and slaver over the little great ones of the earth; *licence* to creep like a worm through life, or bound through it like a wild beast; and last and most precious of all—for it is untaxed—*licence* to starve, to rot, to die, and be buried in a fetid pauper's grave, on which the sweet smelling-flowers sent to strew the pathway of man and woman with beauty, love, and hope, will refuse to grow, much less bloom."

Art. XIII.—THE CITY OF SAVANNAH.

An interesting report on the projected improvement of the Savannah River has been recently made to the War Department by Lieut. Gilmer of the Engineer Corps, aided by Capt. Bowman of the same corps, and by Professor Bache of the U. S. Coast Survey.

In the preparation of this report the writer refers to the progressive increase of the trade and exports of Savannah during the last ten years, and shows the advantages that would result by the expenditure of $201,000 in the improvements that are suggested.

The receipts of cotton at that port by the various channels of communication with the interior are shown to be as follows:

Year.	Rail-road. Bales.	River and from other sources. Bales.	Bales.
1842	—	—	299,173
1843	—	—	243,304
1844	77,437	227,570	305,016
1845	114,641	74,435	189,076
1846	96,532	139,407	236,029
1847	87,524	157,978	245,496
1848	168,718	238,188	406,906
1849	203,725	136,300	340,025
1850	176,031	136,263	312,294
1851	150,866	200.700	351,566
1852	231,210	121,858	353,068

The exports, foreign and domestic, for the last four years, are stated as follows:

Year.	Foreign Ports.	Domestic Ports.	Total.
1849	$7.163,294	$6,793,088	$13,956,382
1850	8,726,763	9,774.889	18,501.652
1851	6,211,671	9,531,633	15,743,604
1852	5,003,811	7,005,770	12,009,581

The imports for the same period from abroad, bear but a small proportion to the exports, viz.:

1849	$582,723	1851	$605,353
1850	555,095	1852	357,689

The difficulties existing in the channel of the river are shown to affect injuriously both the foreign and coastwise commerce of that city. The report says:

> "A large part of the products destined to foreign parts is shipped in vessels having a draught, when freighted, of 16 to 17½ feet. Owing to the obstructions at Garden Bank, and the wrecks, vessels drawing more than 14 to 14½ feet cannot, in the ordinary stages of the river, go to sea from the city wharves. After receiving a part of their cargoes, therefore, they have to drop down to Venus Point, an anchorage of about 7 miles below, and receive the remainder from lighters. Freighting vessels in this way involve both delay and expense, which would be avoided if the obstructions near the city were so far removed as to give a few feet increase in the depth of channel."

A large increase in the rail-road facilities to the cotton regions of the interior of Georgia has already taken place, and will further facilitate the intercourse not only with Georgia, but with the neighboring counties of Alabama, Florida, and South Carolina. The rail-roads which now transport cotton to Savannah, are in length 1,053 miles in the aggregate, viz.:

1st. The Central Rail-road of Georgia, connecting Macon and Savannah, length	192	miles
2d. Waynesboro' and Augusta Road, connecting Augusta with the Central Road and Savannah,	53	"
3d. The Milledgeville and Eatonton Road, connecting these towns with the Central Road and Savannah	39	"
4th. The South-Western Road of Georgia, connecting the south-western counties of the State with the Central Road and Savannah	50	"
5th. The Columbus and Fort Valley Roads, connecting the City of Columbus and the rich valleys of the Chattahooche and Flint Rivers, with Savannah, via Macon and the Central Road	71	"
6th. The Macon and Western Rail-road, connecting Atlanta and the middle counties with the Central Road and Savannah	101	"
7th. The Western and Atlantic Rail-road, connecting Chattanooga, and a considerable portion of Alabama, Tennessee and northern Georgia with Savannah, via Macon or Augusta	140	"
8th. The Georgia Rail-road, connecting Atlanta and the middle counties of Georgia with Savannah, via Augusta, Waynesboro' and the Central Rail-road, or via the Savannah River	171	"
9th. The Athens branch of the Georgia Rail-road	40	"
10th. The Washington	17	"
11th. The Atlanta and La Grange Road	80	"
12th. The Rome branch of the Western and Atlantic Road	17	"
13th. The East Tennessee Rail-road, connecting Eastern Tennessee with Savannah	82	"
Total length	1053	miles.

With the exception of Nos. 2, 5, 10, 11 and 13, the rail-roads enumerated above have been completed, and are now in operation. The five under construction will be finished in a few months. The completion of No. 5 will cause an immediate increase in the receipts of cotton at Savannah to the extent of

90,000 or 100,000 bales. The completion of Nos. 2, 10, 11 and 13, will also give an increase of business, but perhaps less in amount.

In addition to the roads already mentioned, companies have been formed for the construction of a road to connect Savannah directly with the south-western part of the State, to be afterwards extended to some point on the Gulf of Mexico, and for the extension of the South-western Road.

The population of the city of Savannah at this time is about 20,500. The following statement will show the population as early as 1810, and for successive periods up to 1848:—

Population in 1810	5,195
" " 1820	7,523
" " 1830	7,773
" " 1840	11,214
" " 1848	13,573

Showing an increase in thirty-eight years of 8,378, equal to 161 per cent. The increase during the four years since 1848, has been about 6,927, equal to 133 per cent., if compared with the census of 1810, or to 51 per cent., if compared with population in 1848.

Art. XIV.—EDITORIAL DEPARTMENT.

A New-Orleans correspondent calls our attention to an omission in the list of steamboats, published on page 504 of the last volume of the Review. He says:—

"The list shows that the western cities have the largest number, St. Louis taking the lead, and Cincinnati next in the figures.

"This statement contains two important errors, which, no doubt, escaped your observation.

"St. Louis has 126 steamboats, with 30,049 tons; Cincinnati has 104 steamboats, with 24,109 tons; while New-Orleans and San Francisco, one or both entitled to be classed as Western cities, are forgotten. New-Orleans has 111 steam boats, with 34,336 tons; San Francisco has 50 steamboats, with 34,986 tons;—each exceeding in tonnage St. Louis by more than 4,000 tons, and Cincinnati by more than 10,000."

The proceedings of the Memphis Convention will appear in our next number.

We are indebted to Ticknor, Reed and Fields, for a neat volume of poems, by Alexander Smith, of which the Westminster Review says:—"there is not a page in which we cannot find some novel image, some Shaksperian felicity of expression, or some striking simile."

From the same source we have also received a volume entitled *Thalatta*, emb[illegible]cing a selection of the most beautiful poems, apostrophes and addresses, relating [illegible] the sea, which have appeared in the English language. Many of them are exquis[illegible] gems.

From Lindsay & Blakiston, we receive "Historical and Descriptive Sketches [illegible] Norfolk and vicinity," with descriptions of some of the principal objects of intere[illegible] in Eastern Virginia. We intend an enlarged notice of this work.

"The Slave Trade, Domestic and Foreign," by H. C. Carey, will receive attention hereafter."

The June number of Mr. Hunt's national, we might almost say cosmopolitan Magazine, is before us. We have neglected lately to advert to the great and deserved success which everywhere attends the labors of our cotemporary. He was the first to create a literature of commerce in this country, and has reaped a rare harvest of laurels and of fortune. We would add to, rather than diminish them. Our position is not that of rivals, but rather of co-laborers in a great and growing cause, embracing the material interests of twenty-five millions of people. Is not such a field inexhaustible? Are not the mercantile, planting, manufacturing, mining, and other important interests of this great confederation, adequate to the support of two such works as Mr. Hunt's and ours; and are not these interests now in their palmiest days of prosperity and power?

The present residence of the Editor being at Washington City, letters in relation to the editorial of the Review may be addressed to him there; and also any letters relating to the general administration and conduct of the work, which will be promptly attended to.

The subscription and delivery office remains as before at New-Orleans, and all payments whatever will be noted on the cover.

The Editor will receive with kindness, notices from subscribers of inattention or neglect in any of the numerous offices or agencies of the Review.

NEW SERIES OF THE REVIEW.

We shall be able to supply orders received before the first of September for a new series of the Review for the years 1850, 1851, 1852, and for the first six months of 1853—seven volumes, handsomely bound in cloth, 650 to 700 pages each, vols. 1-7.) The price for a set will be $15, and they will be delivered free of postage. We have just 100 sets, and when it is desired, will have future volumes bound uniformly with them.

A few sets of the Industrial Resources still remain.

DE BOW'S REVIEW:

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OF

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Art. I.—THE TELEGRAPH.

> "Canst thou send lightnings, that they may go, and say unto thee, 'Here we are?'"—*Scripture.*

It is even so. The inquiry has been answered in one grand and magnificent sense. The querist and man of patience little dreamed, when using this splendid metaphor to give greater effect to his reproach, and to illustrate the power of Omnipotence, that he was but uttering a eulogy upon science, while he claimed for the Deity but an attribute within the province of mortal triumphs and mortal genius. "Canst thou send lightnings, that they may go, and say unto thee, 'Here we are?'" That restless and ambitious thing, the human mind, undeterred by the subtlety of divine themes, or the awfulness of ethereal problems, has boldly pushed investigation throughout the domain of electrical phenomena, and fettered the hoary potentate of storms on his very throne. Nay, it has torn away the sceptre of the fierce god, sequestered the elements of his realm, and tamed the spirit of tempests to do the weak bidding of man. Science in this has surpassed itself. It has not only accomplished a prodigy, but has worked a miracle—a miracle so vast, so incomprehensible, that the age, much as it has advanced in knowledge and enlightenment, cannot compass the extent of the discovery to which it has given birth. The lightnings have been trained to utter the language of men! Can we conceive of anything more sublime or grand? more thrilling or lofty in the field of imagination? We aspire in our arrogance to count the suns and planets within the visual range; explore the scope of the physical heavens; transfer light and revealed darkness to canvass; imitate the works of the Creator in senseless stone; compress air into dense and powerful bodies; generate a motive agency from water; follow comets and blazing heralds through trackless wastes; and knowledge and science in these pursuits have acquired immortal honors. But what is all this to subjugating the lightnings, the mythological voice of Jehovah, the fearful omnipotence of the clouds, causing them, in the fine agony of chained submission, to do the offices of a common messenger—to whisper to the four corners of the earth the lordly behests of lordly man! But for the present, we shall treat of only one branch of the subject.

Telegraphs were doubtless invented coeval with the institution of society, or the organization of communities. In primeval days, sentinels stood upon the house-tops, and by gestures and postulary signs, communicated the intelligence with which they were charged. Messages were conveyed long distances by means of trumpeters stationed on contiguous hill-tops, who, by minding certain tones from their instruments, could readily and intelligibly convey their tidings from place to place. When intelligence of a peculiar character was desired, and expected, piles of combustible matter were prepared on elevated points, and watchmen appointed to guard and light them at the appointed signal. *Clytemnestra*, in the Agamemnon of *Æschylus*, gives us a beautiful description of these journeying telegraphs. The watchman of the tower has nightly scanned the horizon for ten long years, in vain to catch the gleam that is to announce the fall of Ilion. At last it comes:—

A gleam—a gleam—from Ida's height,
By the fire-god sent it came;
From watch to watch it leapt, that light,
As a rider rode the flame.
It shot through the startled sky,
And the torch of that blazing glory
Old Lemnos caught on high,
On its holy promontory.

And it sent it on, the jocund sign,
To Athos, mount of Jove divine,
So that the might of the journeying light
Skimmed o'er the back of the gleaming brine;
Faster and farther speeds it on,
Till the watch that keep Macistus steep
See it burst like a blazing sun!
Doth Macistus sleep
On his tower-clad steep?

No! rapid and red doth the wild fire sweep:
It flashes afar, on the wayward stream
Of the wild Euripus, the rushing beam!
It rouses the light on Massapion's height,
And they feed its breath with the withered heath.
But it may not stay,
And away—away—
It bounds in its freshening might, &c., &c.

Another mode of telegraphing was by employing fleet runners, who bore dispatches with almost incredible celerity. The monarchs of Mexico were noted for their corps of Indian messengers, who were able, by co-operating together, to carry a message a distance of two hundred and fifty leagues in a day. Primitive European nations had legionaries, who, with elevated spears, sent tidings afar; and succeeding generations substituted the telescope, the mirror, the cannon, and the carrier pigeon. Rockets came later, then the post-boy, and finally the wooden structure, which may yet be found in many parts of Europe, and which, in some respects, bear a close similarity to the windmill edifices against which Don Quixotte expended so much fruitless ire and aggressive valor. The post-coach, however, despoiled these inventions of much of their importance and utility. Carrier pigeons were wholly dispensed with; rockets were tossed out of the civil community into the military ranks; the modern colossus, with its ponderous arms, was deemed indispensable only in extraordinary emergencies, or for marine purposes; the telescope was valued only for discerning objects at a great distance, or was turned over to the use of philosophers; by common consent, the mirror was awarded to the ladies, and became, if not their exclusive, their chief source of delight; and whatever other modes of telegraphing remained, if any, were allowed to become obsolete, or were consigned to oblivion. Science had been active in its researches; and discovery led to discovery, until at length the world was "startled from its propriety" by the introduction of the steam-engine and the rail-way, those stupendous revolutionizers, that are fast linking, in indissoluble ties of fraternity, nation with nation, and interest with interest, until, anon, in this iron embrace, they "shall know war no more."

But science had yet to achieve a greater, may we not truly say its greatest triumph? It has been so since the application of the mind to the investigation of great subjects, that in solving an intricate problem, we find that the secret is also the key to the solution of another; and this progress in mental conquest demonstrates the necessity of new and untried instruments for the hand. On this basis, or by this parity of reasoning, we naturally arrive at this conclusion: that without genius, science would be powerless; without science, ignorance would predominate over knowledge. We are apt to marvel, that in this nineteenth century so many profound truths in philosophy, and secrets in art, have been brought to light, compared with what has been divulged or discerned during the past centuries; but let us not forget, that a fragmentary knowledge of our new electric telegraph had existed in the human mind for hundreds of years; it needed only a master mind to unite the elements; a master hand to forge the mechanical instruments, to show to the wondering world the perfect work. And, as one impediment is overcome, all other obstacles are easily surmounted. The art of expressing thought with types, perhaps, suggested the idea of conveying to the eye images of nature in print from modern blocks. It may be, that the optician, in attempting to improve the focal powers of spectacles for the eye, was moved to conceive the idea of the telescope. But what suggested the spectacles, if not some previous effort of the mind to unlock the secrets of science, and which mechanical skill turned to permanent and valuable good.

The first telegraph constructed on purely scientific principles, was an instrument closely resembling the common telescope now in use. The author of the invention was Robert Hooke, a philosopher of the seventeenth century. Hooke, however, furnished no system of signals with his instrument, and he died disappointed in finding that his genius had attracted so little attention. But the attempt, abortive, as it had been, to supersede the modes of telegraphing in vogue by some new and untried method, stimulated the philosophers of Germany and France to employ their inventive faculties to the same end. Four years after the death of Hooke, William Amentons, a Frenchman, of Lisle, brought forward a plan, the details of which he had plagiarized from Hooke; but the principal feature, and that for which he claimed originality, was the table of characters which accompanied it. This table contained the letters of the alphabet, and a key explained to the operator the signs or signals that expressed the sense of the letters, or any combination thereof. Persons stationed at appropriate distances along a line or route, could despatch messages with considerable facility by this invention. But Amentons came to Paris at a wrong period. He laid the result of his labors before the royal court; but it was a time when vice and debauchery held undisputed sway there—when virtue was jeered at from the throne to the peasant, and genius was left to neglect and starvation. Amentons was not more successful than Hooke had been.

But science was not to be deterred from its great purpose, despite the ridicule of royal concubines. Marcel next stepped into the arena of discovery; then Linguet, Dupuis, Edgeworth, Bergstratter, and a host of others of less pretensions. Marcel pined and labored in poverty, and died without reward in obscurity, cherishing his fond project to the last. He aimed to perfect his scheme before he divulged it to the world; but failing to incite confidence, and obtaining no succor with which to prosecute his studies, he burnt his designs, buried his secret, and "wrapping his cloak about him, brooded in silence and despair, until relieved of his burden of life," which event happened soon after. Linguet had little to lose, and everything to gain by a discovery. He was at this time, and had long been, an inmate of the Bastile, and perhaps after all, his pretension was a ruse by which to obtain his liberty. He, however, asserted that he had invented a telegraph which would supersede all others, and proposed to exchange the secret for his enlargement. It is not known whether government ever paid any attention to the inventor; at all events, his plan, whatever it was, never enlisted the encouragement or patronage of any one. Edgeworth put forward greater claims than all his predecessors or contemporaries; but meanwhile the German philosophers had inundated Europe with every variety of plan and design of telegraph, so that it would be difficult to particularize in what Edgeworth had been original, or what he had borrowed without credit from his rivals and competitors.

Claude Chappe, a French theological student, of Angers, "who was," according to a living writer, "so indolent that his parents thought him fit for no other profession than the church," was the originator of the telegraph which still bears his name. His brothers were at a school three leagues distant, and Claude had frequent occasion to communicate with them; but he most heartily detested the journey which he was compelled still to undertake before he could reach them. One day he set about cudgelling his brains how to obviate this difficulty. The result of many experiments was the invention of the upright post, revolving beam, and circulating arms—those frightful wayside giants which are still to be seen whirling, and striking, and gyrating, and rioting in many parts of the old world. Chappe was inspired with a new idea at the success of his plan. He cast aside his indolence, and began a series of experiments, the fruits of which have made his name illustrious. As soon as he had improved and systematized his scheme, he repaired to Paris, and explained its principles and operation to the republican assembly. This was in 1792. France was at war with the great powers, and early intelligence was of the first importance to the authorities of the capital. After an official trial, his project was highly approved, and himself dubbed *Ingénieur Télégraphe.* The first message this telegraph conveyed to Paris, was the announcement of the surrender of Conde to the Republic. France then wholly adopted the system, and placed the brothers Chappe in the office of general superintendence.

When we come to consider the necessities of speedy deliveries of intelligence in our present day—the augmentation of commercial and maritime interests—and the increased importance of despatch in every department of political and social intercourse—it seems impossible that we can put too high an estimate on the electro-magnetic telegraph discovery. National and individual interests, half a century since, might not have required the employment of a more active agency than the horse-express, or the post-coach; but the steam vessel and the steam carriage have brought nations together, and consolidated states, and it is as expedient that continents should now be traversed in an hour, as fifty years since the same distance should not consume more than two months.

Electricity—that wondrous power which has succumbed to the will of man—has two essential properties, both of which have been tried for telegraph purposes; but for a period of two thousand years, the skill of man was baffled in determining the distinct nature of these two properties, and in what manner to bring them separately or in combination under control. Thales, the philosopher, and founder of the Ionic sect, discovered, six hundred years before the birth of Christ, that Greek amber, when rubbed, exhibited certain properties of attraction which it did not otherwise possess. Thales, however, was too intent on mathematical problems and astronomical calculations to pay much attention to what may have appeared to him an insignificant phenomenon. Besides, it was an age grossly lax in the pursuit of scientific studies. Science was taught, but it was the science of philosophy, and not of art. It was an age when men reasoned from dogmas and abstractions, not from sound theories and natural objects. Electrical phenomena were not unknown to the scholars that succeeded Thales, either in Greece, in Asia, or the islands of the Mediterranean. But no schools, then established, incorporated the study of this branch of philosophy in their classics, and no attempt was made to inform the understanding on a subject which embraces themes the vastest and profoundest of any explanatory of the physical creation. Plutarch, Pliny, Cæsar, Aristotle, Theophrastus, and others, eminent scholars of antiquity, relate that they have seen electrical phenomena of the most marvellous and unaccountable character, but they have purposely omitted details, owing, without doubt, to their ignorance of the subject; and, indeed, they do not seem to have taken even ordinary pains to master this defect.

It was not until near the close of the sixteenth century that the nature of electrical phenomena began to be understood. A German, by the name of Gilbert, published a work entitled *The Magnet*, in which all the then known properties of electricity are treated together, with some observations on the earth and air. Of course, the wildest conjectures are here put forth as sober axioms, while many since ascertained truths—in fact, the primary principles themselves—are unceremoniously dismissed. Gilbert's work, although an embodiment of errors and absurdities, had the good effect of inducing the philosophers of the age to think. Institutions of learning were springing up everywhere, and rare minds, well-stored, were leaving the cloister and academy, prepared to expound and instruct, and to contend for those prizes which the ancients had disdained to touch. Halley was the most prominent of these, who succeeded

Gilbert; while Halley in turn was soon to be eclipsed by Otto Guericke, a Prussian, who constructed an electrical machine which consisted of a sulphur globe, made to rotate by means of a winch; and with this simple apparatus, and a cloth pressed against the globe, he discovered the existence of a controllable electric fluid, and that this electric fluid could be made to pass from one body to another without actual contact. This was a grand and sublime discovery. It was the first real step toward the final establishment of the electro-magnetic telegraph.

We shall not dwell on the subsequent experiments that were made, until we come to the adaptation of electricity to telegraphy. Guericke's sulphur ball was superseded by Hauksbee's glass globe. Stephen Gray demonstrated that by means of a thread, an electric impulse might be conveyed a great distance. The French philosophers, Nollett and Dufaye, carried their researches farther. They classified all substances as electrives, or non-electrives, or, in our terminology, positives and negatives. Thus predicating their opinions, they conducted their scientific labors with the most astonishing results. This was another step toward founding the electro-magnetic telegraph. Gradually, as we shall see, the key of science and the genius of ambition unlocked the mysterious doors, and let forth the flood of light which had been shut up in the past since the birth of creation. The philosophers of Leyden next stepped upon the stage, and removed other impediments.

Dufaye, as we have said, had demonstrated that electricity, by means of cords, could be carried great distances. Dr. Watson, Fellow of the Royal Society of England, informs us, that he caused a wire to be carried across the Thames (London), one end of which was in contact with a charged Leyden jar, and the other was held by a person on the opposite side. "A second person was placed in communication with the jar, and on a given signal, the two dipped into the river an iron rod which they held in their hands, on which the shock travelled from one side of the stream to the other by means of the wire, and came back through the water to complete the circuit." It now needed but another advance to complete the climax of electrical discovery; and that was, to prove the relationship of electricity to lightning. Dr. Franklin triumphantly proved their identity, and to him, therefore, is due the honor of having originated the electro-magnetic telegraph; to others, the honor of having founded it.

Le Sage, a Frenchman, residing at Geneva, introduced the scheme of an electric telegraph to Frederick, king of Prussia. His scheme was, to insulate twenty-four wires, to each of which he appended a ball, representing twenty-four letters of the alphabet. An electro-meter was to record each letter according to the wire vibrated, and thus the sense of communication was to be obtained. The idea itself was good, but it was not feasible. Reasons will be adduced as we proceed, to show that neither the scheme of Le Sage, nor any other electric telegraph projected, could have succeeded. Le Sage, although sanguine of interesting the crowned heads of Europe in the project, appears to have met with but slight encouragement from any quarter.

Lemond, a few years later, invented an apparatus that approached nearer to what was still a desideratum. It is described as "a machine inclosed in a cylindrical case, in the top of which is an electro-meter—a fine pith ball. A wire connects with a similar cylinder and electro-meter in a distant apartment;" and his wife, "by observing the corresponding motions of the ball, writes down the words they indicate:" from which it appears he had formed an alphabet of motions. Seven or eight years afterward, Cavallo, a Spaniard, and Reister, a German, introduced plans. That of Cavallo was a complex and impracticable contrivance. It never engaged the public attention. Reister proposed illuminated signals, which were to answer all the purposes of the alphabet. Plates of glass, partially covered with tin foil, were connected by wires to a Leyden jar, and sparks were discovered on the uncovered portions of the glass while the electric current was passing. This scheme, although infinitely a better one than Cavallo's, shared the fate of the former, and was soon forgotten with its author.

Now that it had warmly espoused itself to the subject, science was resolved to solve the problem of electric telegraphs. Salva, a physician of Spain, undertook to accomplish what others had failed to do. His first essay was crowned with success. The Infante was so pleased with the result, that he caused wires to be stretched from Madrid to his country villas. He afterwards had a line constructed from Madrid to Aranjuez, forty miles in length; but notwithstanding these favorable symptoms—these bold forays—the end had not been attained, and genius and human understanding were almost as far from the true object as ever. The principle in many of the experiments made was correct, and the apparatus or machinery employed was well calculated for the purposes in view. Then whence these utter failures?

We have stated that electricity has two essential properties, only one of which can be trained to successful telegraphy. The property of fluid, gathered by friction or from the Leyden jar, is statical, by which is meant its capriciousness and extraordinary tension. Its tendency is to escape from its conductors, and to be in other respects uncontrollable. During favorable weather, or within doors, it might be used with tolerable advantage; but it is unreliable, fickle, vicious, and unmanageable, where damp is concerned, and distances are to be overcome. It was the statical electricity which the philosophers of the seventeenth century employed, and hence all their mistakes and disappointments. The property of the dynamic fluid, while being a manifestation of the same primary power, is widely different in its character. Its tendency is to adhere to its conductors. It is neither vicious, nor eccentric, and can at all times, and under almost all circumstances, be trained to the human will. Had the philosophers of the past been able to distinguish this important fact, and to account for it in electrical phenomena as it is now accounted for, the results of their labors would have been the establishment of electro-magnetic telegraphy seventy years ago.

It was reserved for accident to lead to the discovery of two distinct primary properties in electricity. How much do we not already owe to accident for beneficial results ! We are informed by concurrent testimony, that the lady of Galvani, Professor of Anatomy in Boulogne, was seized (1790) with a severe cold, for which her physician advised frog soup, or broth. Some frogs were obtained, and by chance were laid near an electrical machine in the professor's laboratory. An assistant had occasion to use the machine, and he observed, that as often as sparks were emitted, the limbs of the dead frogs would move as if instinct with life. Astonished at what he saw, the assistant hastened to inform the professor of the wonder, and the latter attended to witness the fact for himself. Becoming deeply interested in a phenomenon so perplexing and entirely new to him, Galvani tried other experiments, and ascertained that the results which followed the use of the conductors were similar to those which followed the use of the apparatus. Galvani was now satisfied that he had touched the spring of a profound secret, and he resolved to prosecute the study of its key at once. For this purpose he had a number of the legs prepared and electrified, which he hung up by copper hooks in front of an iron balcony. To his utter amazement, the limbs were thrown into strong convulsions, and continued to labor violently so long as they were kept in this situation. From this additional circumstance, Galvani proceeded to propound his theory, which was, the doctrine of *animal magnetism*, or *galvanism;* in other words, the existence of a nervous fluid, which, in the minds of nine-tenths of the masses, experiment had demonstrated beyond the shadow of a doubt.

But there *were* still some who doubted. Volta, the author of the Voltaic Pile, was not of the number who gave in their adhesion to a doctrine so preposterous. He visited Galvani, examined closely into the outward merits of his discovery, and returned to Pavia, where he shut himself up, and proceeded to analyze the scientific problem which had been propounded to him. He ascertained at length, that the agitation of a nerve or muscle, when touched by two pieces of different metals, was greater than when touched by one; and consequently, that instead of there being a nervous fluid resident in the organism, the electric property was confined alone to the metals. He had now overcome the difficult part of his task. His next step was to construct an apparatus, which should not only accumulate, but render continuous, the power that had puzzled Galvani, and which the latter had, without due investigation, at once ascribed to be a resident property of the nerves.

Volta's discovery was accepted as the true theory. The sydamic property was known to exist in contradistinction to the statical property, and all philosophy had to do, was to make that distinction by mechanical agency. Oersted, the Dane, was the man for the emergency. Ritter, of Munich, had already shown that metal could be magnetised by the Voltaic battery; but Oersted proved the existence of more remarkable phenomena relative to the action of the magnetic needle. He demonstrated how that, by the meeting of two electric currents, a new development of power ensues, which attracts or repels the needle of the North Pole, as it may be positive or negative, and that the direction of this power is not in a *right*, but in a *spiral* direction. Experience has confirmed the correctness of this view. Ampère, who was contemporary with Oersted, co-operated in shedding light upon the science. He simplified Oersted's system, and gave to it a more practical character. Ampère was in turn aided by M. Arago, who ascertained that, by plunging the wires of a battery into steel filings, the latter adhered to the wires so long as the electric current remained complete. If a wire could thus be magnified at will, why, he argued, could not huge bars of iron? and acting on the suggestion, he caused a number of magnets to be forged, varying in size, which he tested, and satisfied himself that the opinion he had formed was well-founded in both principle and practice. Thus, we perceive, cloud after cloud was dispelled, until at length the auspicious light was to dawn upon the intellect.

But let us hurry on, and overtake those who have profited by Oersted's discovery, as simplified by Ampère. It is now 1811. Soëmmering, of Munich, had meanwhile endeavored to apply voltaic electricity to telegraphy. His scheme was much the same as Le Sage's, that is, it comprehended as many wires as there are letters in the German alphabet, with the addition of numerals from 0 to 9, all of which terminated in 35 golden points in a vessel partially filled with water. Decomposition of the fluid took place when the fluid passed from the pile, and a bubble of oxygen or hydrogen gas appeared at the letter or numeral to which attention was desired. To this contrivance

Schweigger added an alarm wire, by which signals by the operators were conveyed. He likewise proposed a reduction of wires to two; demonstrating the superior advantages of a less number than 35. He also showed the feasibility of attaching a printing apparatus at each terminus of the lines, this being at present the distinguishing feature of the House telegraph.

The deflection of the magnetic needle next became the subject of learned disquisition and eager research. The magnetic current, when passed along the line to any great distance, was found to be incapable of producing any well-defined movement, and Schweigger set about remedying this defect. He produced in time his multiplier; and the main drawback was rectified. This instrument deserves to be described. The principle on which it is constructed, is, "that a current returning upon itself, acts in all its parts, and causes a powerful deviation of the magnetic needle placed with it;" and a "conducting wire, twisted upon itself, and forming a hundred turns, will, when traversed by the same current, produce an effect a hundred times greater than a wire with a single turn; provided always that the electric fluid pass through the circumlocutions of the wire without passing latterly from one contour to another." This, adds the description, "is a condition easy to fulfill. To make a multiplier, you take a silver or copper wire of any length or size, closely enveloped in thick thread, and wind it round a small frame, within which the needle is suspended on a pivot, and leaving a few inches free at each extremity. These are called the two wires of the multiplier, and when in work, the current enters by one end, and passes off at the other."

We perceive that genius was rapidly accumulating all the practical elements of the synamic electro-telegraph. One more discovery would complete the triumph—that was, thermo-electricity, and science and enterprise soon conquered the sole remaining difficulty. Seebeck, of Berlin, stood forth, and successfully contended for the prize. He rightfully claimed the authorship of the theory, though Becquerel and Daniell improved and practically adapted it. Becquerel had shown, in carrying out the theory propagated by Volta, "that a pile might be constructed with a constant though feeble current," and it was of the first importance to find a stronger power. The pile was removed by Daniell, and substituted by batteries of various forms. The zinc was plunged in a solution of chloride of sodium, and the copper in a solution of the sulphate of copper. The products of decomposition were ingeniously disposed of and the loss of power admirably guarded against, so that the action maintained its full force for a considerable duration of time. We have now all the elements of the electro-magnetic telegraph before us. Who, among the philosophers of the age, is it that comes forward and combines them? *Morse*, the American. *Franklin*, the American, had long before demonstrated the identity of electricity with lightning. It remained for Morse to group the combined wisdom of two ages in one grand and practical test, and to exhibit to mankind the novelty of lightning doing obeisance to every impulse of the human will. All improvements that have since been made, either by Professor Morse or his agents; by House and Bain of the United States; by Wheatstone and Smee of England; by Steinheil of Munich; by Voorsselman of Derenter; by Baron Schilling of Russia; by Puninge of France, and others, are all new adaptations or modifications of the same principle. But Professor Morse stands alone as the discoverer and the illustrious founder.

We will next consider the mechanical process and operation of the electro-magnetic telegraph. The wires in common use average about one-fifth of an inch in diameter. At first a smaller wire was adopted, then a triple twisted wire; but both have since been discarded, and the zinc coated, or galvanized, solid wire of a larger size was substituted. Three and a quarter miles of the ordinary telegraph wire weigh a ton. Its manufacture has become quite a branch of business in the United States, very little of the foreign article being imported. Copper wire, which at one time was almost wholly used, is now confined to lines of short distances, its cost being a main objection to its more general employment. The greatest distance in the world, traversed by a single wire, is that from New-York to New-Orleans, being a travelled measurement of one thousand nine hundred and sixty-six miles. The entire extent of telegraph line in the United States, in operation, is 23,275 miles, employing 6,000 tons of wire, and 698,250 posts or supporters. These supporters are supplied with insulators, to prevent the fluid from being interrupted by the porous wood, which, on being saturated with rain, or damaged by fogs and heavy dews, would materially affect the free passage of the current. The method of insulation in the United States is varied; but the general practice is, to wind the wire round glass or glazed stone-ware knobs, passing it through caps of the same material, or enclosing it throughout with gutta percha. Glass is but little used in Europe, earthenware being deemed far superior for the purposes of insulation. In England, France, Belgium, and Germany, many lines are supplied with four, eight, and even ten wires, while in the United States, with a single exception, the highest number to a line is three. The lines in Europe are well protected by lightning rods; an example of prudence we are beginning to imitate.

The battery, or generating power, is a simple apparatus. Let us imagine ourselves standing by the side of a wooden trough, which is divided off into twenty or forty cells, according to the power required. The partition walls are commonly of slate; they should always be of an incorrosible substance. Two plates of metal, one of zinc and the other of copper, laid alternately, are placed in each cell, in such a manner that all the plates of one kind face together toward one end of the trough; and those of the other face together on the opposite end of the trough. A ribbon of copper unites each pair of plates in the centre of the upper edges, "forming, as it were, so many curved handles, by which they can be lifted in or out. As soon, then, as the remaining vacant space in each cell is filled with an, acidulated fluid, the action commences; the acid begins to act upon the zinc by dissolving it; the water contained in the solution is decomposed, and hydrogen is thrown off from the surface of the copper plates; while, by a combination of oxygen, oxide of zinc is formed, and this, dissolving in the acid—which is commonly sulphuric—sulphate of zinc is produced. These effects are the consequence of the general law established in relation to voltaic electricity, 'that by the contact of dissimilar metallic bodies, a partial transfer of the electric fluid from one to the other invariably takes place.'" A "positive current is generated at the zinc, and passes to the copper through the intervening fluid in all the series of cells, and continues to flow as long as contact is maintained between the wires which depart from either end, whatever be their length." The cells of telegraph batteries are sometimes filled with well washed sand, instead of a fluid; and this sand undergoes moistening by pouring in dilute sulphuric acid, which prevents a needless waste of the plates, while their full power is undiminished. The zinc is specially liable to oxydation and dissolution, to guard against which, it is only necessary to dip the plates frequently into a vessel of mercury. Persons who use the Leyden jar in their families, are well aware that their silver coating thus obtained prevents the wasteful effervescence that would otherwise ensue. The earth itself has been made to furnish a supply of the electric force, by a pair of zinc and copper plates being buried in a damp or wet subsoil. When saturated with water, the ground represents the sand, saturated with acid water, in the ordinary battery. A current of low intensity is thus obtained, notwithstanding that miles may intervene between the deposits of the plates. The earth acts as the return wire to any given number of wires, without in the least affecting the regularity of the action of any of them. The battery universally adopted in this country, is that by Grove, "of cups of zinc, with strips of platinum in an earthenware or porcelain cup, which cup is filled with nitric acid, which is placed inside the zinc cup, in a tumbler filled with dilute sulphuric acid. The main battery on a line (from 30 to 50 cups) requires renewing only once in every two weeks, and daily in local batteries of two or three cups." Grove's battery, besides being the most consistent and economic, is the most powerful in use.

From the battery, which is kept in a remote and secure place, we proceed to the operating room. Here the battery wires meet the telegraph wires in what is called the electro-magnetic machine. This apparatus externally resembles the works of a mantel-clock; but their operations, how similar, and yet how different! One computes, the other commutes, time. To describe the electro magnetic machine is a difficult task. We have presented to us, for our inspection, manipulators, hieroglyphical characters on circular plates or planes, or rollers through which a strip of puncturated white paper is passing, and wheels innumerable, and a complication of other coöperating agents; but to the uninitiated the whole is a perplexing mystery. We perceive externally two needles, which are the tongues of the instrument, and the action of these is the language of the machine. The operator, with a message in writing before him, places his finger on a lever, and by compressing and relaxing this, the medium of correspondence is established. Within the machine are placed other needles to correspond with the external tongues, and are so situated that the South Pole of one and the North Pole of the other are in the same position, by which means the influence of the fluid is neutralized, or, rather, the action of the magnetism upon them. They are kept in a perpendicular position, and are obedient to the slightest impulse from the battery. The inner needle is suspended within a multiplier, which intensifies the power of the electric current at this spot, and which deflects the needle to either side by the outward movement of the handle or lever, which opens or closes the electro-magnetic circuit. The secret of working the apparatus is easily acquired. The art, indeed, in many of the rural districts, is principally in the hands of women; and thousands, by this discovery of science, now earn livelihoods at the electro-machine, who otherwise might be or have remained drudges in less intellectual employments.

There are three systems of telegraphy established in the United States. The Morse system, first brought to notice in 1837, is the oldest. The House system was perfected in the spring of 1846, and the Bain system in the winter of the same year. The difference between the Morse and House telegraphs consists in this, that "the first traces at the distant end what is traced at the other; while House's does not trace at either, but makes a signal of a letter at the distant end which has been made at the other; and thus, by new machinery and a new power of air and axial magnetism, is enabled to print the signal letter at the last end." This feat is accomplished at "the rate of sixty or seventy strokes or breaks in a second, and at once records the information by its own machinery in Roman letters!" Morse's system is less complicated, and is more popular. It is of easier intelligibility, while House's is "very difficult to be comprehended in its operations in detail, and works with the addition of two more powers, one air, and the other called *axial magnetism*. One is a tracing or writing telegraph, the other a signal and printing telegraph." The Bain system, which was patented as an "electro-chemical telegraph," has been greatly improved by Robert Smith and Henry J. Rogers. It claims original advantages—"1st. More economy and simplicity in the primitive construction; 2d. More rapidity in the transmission of despatches; 3d. An electric current more feeble than ordinary, suffices to cause the apparatus to work; 4th. More simplicity and economy in the correspondence and superintendence; 5th. Fewer chances of error in the despatches sent. These are the merits conceded to, or claimed by, the three systems.

We have examined the battery and the electro-machine; we come now to the connections of the termini. The battery wires are brought from the battery, and so arranged, that in order to reach the telegraph wires, the current must first excite the magnet and the needles. The telegraph wires, brought from another terminus, are introduced into the electro-machine, and attached to the magnet and multiplier. Still there is no active contact between the battery wires and the telegraph wires, until the operator presses upon the lever before referred to, when the electric current begins at once to perform. The result of the contact of these positives and negatives is instantaneous; while the diametrically opposite manifestations of the same sublime agency are profound and amazing. Thousands of miles are commuted, not lapsed; and time may even be anticipated. Space is annihilated. It is a throb, and the vibration is simultaneous. There is, as there must be, velocity; but what velocity! Light will travel 200,000 miles of space in an instant of time, while electricity is supposed to travel one-third faster! or 480,000,000 miles in a single hour! While a person would occupy five minutes in passing from his counting-room to his dwelling, electricity would make the circuit of the globe one thousand six hundred and sixty-six times! And this agent, with inconceivable powers—which had baffled philosophy for centuries—was first drawn from the clouds, and trained to practical utility, by two unostentatious republicans, living in the back-woods of the western hemisphere. What ovations of thankfulness will not posterity offer up in honor of these illustrious names—Benjamin Franklin and Samuel F. B. Morse!

There is no motion in the passage of electric fluid; nay, it is only by way of illustration that we use the word at all, for electricity does not travel. The emotion is produced, not by lapsation or commutation, but by a polar law, of one molecule affecting another, until the motion is universal throughout the extent or cycle of the actuating power. M. Arago has compared the electric flashes to the great tidal waves of the south Atlantic, which roll forward at the rate of a thousand miles an hour; and adds, that these electric flashes, which appear to develope themselves over the whole scope of the visible horizon, are not equal in the duration of time to the thousandth part of a second! And if the great gulf tide—wave rushing upon wave at the rate of fifteen or twenty miles a minute—were in reality an accumulating body of water, gathering mightier force with every surge, and multiplying its volume in proportion to the distance travelled, what barrier could resist it, after traversing as it does a distance of three thousand miles, and absorbing the currents of two hemispheres? Continents would be swept away as fragile mounds, and the globe itself tremble and pause on its axis with the shock of the frightful disaster. But the gulf tide is not an accumulating body of water, nor even a moving body. It is the original impulse or vibration that travels from particle to particle, and produces the phenomenon; just as the observer will remark, during the passage of a vessel through becalmed water, how the swell will extend and continue until the actuating cause has lost its power and force.

Science having once discovered this new agent, is not content with having given us the electro-magnetic telegraph. Genius is engaged with new inventions, calculated for the adaptation and employment of the electric agents, and the astronomical clock is among the first fruits of these scientific experiments. The benefits which astronomy has already derived in this respect are exceedingly valuable. The astronomical clock, of Strasburgh, which recently excited so much attention among savans, is a wonderful production. It is composed of three parts, respectively dedicated to the measure of time, to the calendar, and to astronomical movements. It strikes the hours and the quarters with marvellous exactness. The motive power puts in motion several allegorical figures, one of the most curious of which is the genius on one of the balustrades, who turns every hour the sand-glass which he holds in his hand. A cock crows, and a procession of the apostles takes place every day at noon. In the calendar are noted the months, the days, and dominical letters, as also the calendar proper, showing all the saints' days in the year. The plate on which the signs are inscribed, revolves once in 365 days for the common, and 366 for the leap or bissextile year—marking at the same time the irregularity which takes place three consecutive times out of four in the secular years. "The moveable feasts, which seem as though they followed no fixed rule, are nevertheless obtained here by a mechanism of a marvellous ingenuity, in which all the elements of the ecclesiastical computation—the millesimal, the solar circle, the golden number, the dominical letter, and the epacts—combine and produce, for an unlimited period, the result sought. It is at midnight of the 31st of December, that the other movable feasts and fasts range themselves on the calendar in order and place of their succession for the whole of the following year." The third division solves the problems of astronomy. It exhibits an orrery, constructed on the Copernican system, which presents the mean revolution of each of the planets visible to the naked eye. "The earth in her movements carries with her her satellite, the moon, which accomplishes her own revolution in the space of a lunar month. Besides, the different phases of the moon are on a separate globe. One sphere represents the apparent movements of the heavens, making its revolution in the course of the sidereal day. It is subjected to that almost imperceptible influence known as the procession of the equinoxes. Separate mechanisms produce the equations of the sun, its anomaly, and right ascension. Others, the principal equations of the moon; as, its erection, anomaly, variation, annual equation, reduction, and right ascension. Others again relate to the equations of the right ascending node of the moon. The rising and setting of the sun, its passage to the meridian, its eclipses, and those of the moon, are also represented on the dial." By means of the electrical agents, errors in astronomy have been corrected, which otherwise would have escaped the nicest perceptions. Thus aided, observation divulges every day some unknown secret of philosophy, and carries us imperceptibly nearer to the foot-stool of true knowledge. How much, indeed, the human family is yet to be benefited by the electrical agents, none may even conjecture.

There are in operation in the United States, 23,275 miles of electro-magnetic telegraph, and over 8,000 miles projected and partially completed.

Length of Morse line in operation	18,863	miles.
Length of House line "	2,400	"
Length of Bain line "	2,012	"
Total	23,275	"

☞ This is the number of miles traversed, not the air line distances, as many lines have double and treble wires. The geographical or air line distance is 16,729, that is, there is one and a half miles of telegraph for every mile of canal in the United States, and a mile and a quarter for every mile of rail-road constructed. The cost of building a telegraph line, averages $150 a mile; consequently the cost of the telegraph lines in the

United States, irrespective of motive machinery, has been $2,509,350. It is estimated that eight thousand tons of iron have been consumed in the manufacture of the wires, and the necessary fixtures.

Although Professor Morse had conceived the idea of his telegraph in 1832, it was not until 1837 that its details met his entire approbation. At the suggestion of Levi Woodbury, Secretary of the Treasury, Congress appropriated $30,000 for the purpose of enabling Professor B. to make a public experiment of his discovery. A line was established between Washington and Baltimore, a distance of 43 miles, and its success was commensurate with the opinion the public had been induced to entertain of it. Its first feat was to transmit messages at the rate of seven words a minute! We now turn up our noses at a machine that will not dispatch at the rate of 1,000 letters per minute. From this insignificant beginning, enterprise has gone on, until, in the space of fifteen years, wires have been stretched over a distance of nearly twenty-four thousand miles. The ordinary performance over a single wire, is about 9,000 words, although instances have occurred in this country where messages have been transmitted at the rate of 13,000 words per hour. It is no unusual thing for an important public document to be telegraphed to the press entire; in fact, the press is the patron of the telegraph to an amount exceeding $150,000 per annum. The charge of transmission is twenty-five cents for ten words sent a hundred miles, a considerable reduction under the charges of foreign telegraphs. Every city in the Union is in telegraphic connection with another, so that, whatever of intelligence is afloat, whatever is the condition of the market, whatever, in a word, is worth the trouble and expense, is caught up and vibrated throughout the land.

The telegraphs of England are next in extent and importance to those of the United States. The first established was in 1845, eight years after the line between Washington and Baltimore had been completed. England, however, has but 4,000 miles in operation; but the area of territory to be traversed is a mere patch compared with our own. The average charges of transmission in the United Kingdom are one (British) penny per word for the first fifty miles, and one (British) farthing per word for any distance beyond one hundred miles. The foreign connection, however, is quite extensive. By means of the submarine telegraph between Dover and Ostend, a continuous communication may be had with Paris, Sweden, Trieste, Cracow, Odessa, Leghorn, and the principal intermediate cities. Some capitalists of London and New-York have been called upon to contribute to the project of a line of submarine telegraph between these cities, passing through the Canadian territories.

The proposition is, to start at the "most northerly point of Scotland, thence to the Orkney Islands, and thence by short water lines to the Shetland and Faroe islands; thence a water line of 200 or 300 miles conducts the telegraph to Iceland; from the western coast of Iceland another submarine line conveys it to Keoge Bay, on the eastern coast of Greenland; it then crosses Greenland to Juliana's Hope, on the western coast of that continent, in 60° 42', and is conducted thence by a water line of about 500 miles, across Davis's Straits to Byron's Bay, on the coast of Labrador. From this point, the line is to be extended to Quebec." * * * "From the Shetland Islands it is proposed to carry a branch to Bergen, in Norway, connecting it there with a line to Christiana, Stockholm, Gottenburg, and Copenhagen;" while from Stockholm "a line may easily cross the Gulf of Bothnia to St. Petersburg." The whole expense of this gigantic undertaking is computed at $2,500,000. A similar enterprise has been started, to which the British North American provinces are principal parties. It is proposed—and we believe a portion of the work has been commenced, "to start from Halifax, N. S., and proceed to Cape Race, touching at St. Johns, and crossing the Island of Newfoundland to Cape Ray; thence by a submarine line of 140 miles, across the St. Lawrence, a landing being made at Cape East on Prince Edward's Island; and going through that island, thence it crosses Northumberland Straits by another submarine line of 10 miles, landing at Cape Torment in New Brunswick, and so on to the boundary of the United States, whence by an independent line to New-York the connection is completed." Whether either of these lines will ever be finished, or brought to maturity, it is difficult to determine; but the interests of commerce and the genius of the age demand, and will not rest content, until they establish a more intimate relationship between the Old and the New Worlds. The first proposition contemplates overcoming the entire distance by telegraph, the other would only reach a point where intelligence from Great Britain by steamer could be received in four or five days. Canada has already a thousand miles of line in operation, and is manifesting a disposition greatly to extend her lateral and transverse routes.

Prussia has probably two thousand miles of telegraph in operation, all of which were constructed within the past three years. The wires are buried two feet below the surface of the ground, and are carried across rivers in chain pipes. New lines are in progress, and will doubtless soon be completed; so that the kingdom will be traversed by 3,000 miles of line. We are without reliable data with respect to other continental countries; but in almost every kingdom of Europe, lines are either in operation, in process of construction, or projected.

The subjoined account is given by a writer of the telegraphs in India.

"From Calcutta to Rajmoole, the conductor is laid under ground, in a cement of melted rosin and sand. From that village, through the remaining distance to Kedgeree, it is carried over ground on bamboo poles, fifteen feet high, coated with coal-tar and pitch, and strengthened at various distances by posts of saul-wood, teak, and iron-wood, from America. The bamboo posts are found to resist the storms which have uprooted trees, the growth of centuries. Though the bamboo soon decays, its amazing cheapness makes it more economical than that of more durable and costly materials. The branch road from Bishlopore to Moyapore passes through a swamp; the country is little else than a lake for five months; the conductor runs on the foot-paths between the island villages, and for some miles crosses rice swamps, and creeks on which no road or embankment exists. The most difficult and objectionable line was selected to test the practicability of carrying the conductors through swampy ground, and it has been perfectly successful. The Huldee River crosses the Kedgeree line half way, and varies in breadth from 4,200 to 5,800 feet. A gutta percha wire, secured in the angles of a chain cable, is laid across and under the river, and the chain is found to afford perfect protection from the grapnels of the heavy native boats which are constantly passing up and down. The overground lines differ totally from those in use in any other country in this important respect. No wire is used. Instead of wire, a thick iron rod, three-eighths of an inch in diameter, weighing about one ton to the mile, is adopted; the heaviest wire elsewhere used being only one cwt. to the mile. The advantages of these substantial rods are these: they possess a complete immunity from gusts of wind or ordinary mechanical violence. If accidentally thrown down, they are not injured, though passengers and animals may trample on them. Owing to the mass of metal, they give so free a passage to the electric current that no insulation is necessary. They are attached from bamboo to bamboo without any protection, and they work without interruption through the hardest rains; the thickness of the wire allows of their being placed on the posts without any occasion for the straining and winding apparatus, whereas the tension of wire exposes them to fracture, occasions expense in construction, and much difficulty in repairs; the thick rods also admit of rusting to take place, without danger to an extent which would be fatal to a wire; and lastly, the rods are no more costly than thin wire, and the welding occasions no difficulty."

We have now considered the electro-magnetic telegraph in its theoretical and practical details. Its purposes, its uses, *and its destiny*, we will reserve for consideration hereafter.

Art. II.—THE WHITE, FREE-COLORED, AND SLAVE POPULATION OF THE UNITED STATES.

We publish with pleasure the following paper, furnished us by Dr. Chickering, the well-known statistical writer, of Massachusetts. The analysis which it makes of the slave and free-negro statistics of the Union, from the earliest times, will be found in the highest degree instructive. Dr. Chickering is a northern man, or he would never have written the paragraphs referring to some future danger to the South from an overgrown slave population, and a possible future necessity for a resort to the strong arm of the government in its defence. These dangers are entirely chimerical. The slaves of the South are held in much better control now than at any period when their numbers were, in comparison, insignificant. The South asks nothing but to be left to take care of herself. However, we have no objection to let Dr. Chickering's views go out entire, since they are in the main liberal to the South, and just and discriminating. We have less faith than he has in the practical value of colonization.—*Ed.*

The following table exhibits the *average decennial increase*, or *decrease per cent.*, of the several classes of the population of the United States from 1790 to 1850, distinguishing the free from the slave states and territories, and showing the result *before* and *after* the prohibition of the slave trade in 1808. The decrease of the slaves in the free states and territories is marked thus ——. In the column headed *average per cent., in ten years*, I have included in parentheses the proportions in each of the decades :—

[We omit these tables, having in previous volumes of the *Review* given the statistics of the United States population from 1790 to 1850, very full in all of its divisions, which the reader may consult.]—*Ed.*

The increase of the *white population* in the free division has, on an average, in each of the six decades, exceeded that in the slave division a little more than 8 *per cent.* This excess has arisen, in all probability, chiefly from the greater immigration of foreigners into the former than into the latter. There has been a constant migration from the free to the slave states, and *vice versa*, and it is doubtful which division has gained the most in numbers by this migration.

In both divisions, the average decennial increase has been a little less during the last forty years than it was during the twenty preceding years; but the average was reduced 1 *per cent.* more in the slave than in the free division.

The average decennial increase of white persons in the whole country has been 35.67 *per cent.*, nearly *one-third part* of which has arisen from the immigration of foreigners into the United States. This will make the *natural* increase of the white population, or the excess of births over the deaths, to have averaged about 24½ or 25 *per cent.* in each decade since 1790.

The whole increase of the white population of the United States in the sixty years from 1790, was 16,384,737. Now, on the supposition that 25 per cent. in each decade was the *natural* increase, which is believed to be rather larger than its actual amount, this natural increase would be 11,483,455; and, if equal in the two divisions of the states, the number in the free states would be 7,406,419, and in the slave states 4,077,036; and the remaining part of this whole white increase, amounting to 4,901,282 in the United States, would be distributed in the two divisions of the states as follows, namely: 4,016,531 in the free states, or 13.59 *per cent.* of their white population, according to the censuses, and 874,751 in the slave states, or 5.36 *per cent.* of their aggregate population, as the result of the foreign immigration into the country in the sixty years from 1790.

This amount of about five millions of our white population in 1850, as the result of foreigners settling in the United States during the sixty preceding years, may seem at first view too large; but it includes not only the immigrants themselves, but their descendants; and when we analyse it, and consider some facts connected with it, it will probably seem to be within, rather than to exceed, the actual addition from this source.

The number of foreign passengers (most of whom were immigrants) reported at the custom-houses, by the collectors, during the thirty years ending June 30, 1850, (the last half of the whole period,) was nearly 2,300,000, which is nearly half the estimated increase from foreign immigration. This number is to be largely increased on account of those who come into the country without being registered at the custom-houses, estimated at from one-third to one-half of the arrivals from on ship-board. There were found in the United States, June 1, 1850, and numbered in the Seventh Census, over 2,200,000 foreigners by birth, nearly all of whom were survivors of the immigration since 1820. The near agreement of these two accounts establishes their general correctness. By taking from the actual increase of the white population in these thirty years this number of the registered arrivals, the decennial average increase is reduced to 26 *per cent.* in the three decades,—which affords good evidence that for the last thirty years this difference of one per cent., amounting to 325,000, is not too large an estimate for the omissions in the registration returns, and for the children born here of the emigrants who have arrived from 1820 to 1850.

This foreign element is diffused over the whole country, and must exert an important influence on the state of society, and on the future destiny of the country. In the free states, the immigrants and their descendants, since 1790, are much more numerous than in the slave states. They have come from almost *every country* of the old world as well as of the new. A much larger portion of them have come from the United Kingdom of Great Britain and Ireland. Of late years, probably two-thirds of the whole number have come from the United Kingdom; and the number of those who have there embarked with the intention of coming to the United States, during the last thirty years, agrees very nearly with the returns of our custom-houses, and of the assistant marshals for the Seventh Census. At present, the tide seems to be set for an increased portion of immigrants from Germany, from which country, for over a century, the immigration has been large.

As to the *free colored persons*, there is a marked difference between their decennial increase in the first 20, and that of the last 40, years. The average in the first two decades in the free states was over three times, and in the slave states over four times, what it was in the last four decades. It would seem that the impulse which led to the Revolution as a struggle for liberty still operated, and with more vigor, in the emancipation of the blacks during the first third, than during the last two-thirds, of the sixty years. From 1840 to 1850, during which time the public mind has been in an unusually excited state on the subject of slavery, the increase has been the least of any of the decades, and has amounted to only 12.94 *per cent.* in the free states, and 10.11 *per cent.* in the slave states—averaging 11.23 *per cent.* in the United States. It seems that there has been, since 1790, a marked and pretty regular decrease of the proportion of the numbers added to the class of free colored in the population of the United States.

The average increase of the *total free persons* is the average increase resulting from the aggregate of both the whites and of the free colored persons. It will be observed, that the average was greater in the first third than in the last two-thirds of the period in both divisions, but the increase in the successive decades has been irregular.

As to the *slaves* there has been a *decrease* in every decade in the free states, and generally of greater amount in the later decades, till in 1850, their number remaining in this division was only 251, most of whom were held as "apprentices," against 40,379 in 1790, sixty years before. Most of the last mentioned have been emancipated by provisions of state laws; and substantially slavery now exists but in name and in history in this portion of the American Republic.

But in the *slave* states there has been an increase of the number of slaves, in proportion somewhat unequal, during the several decades, the least proportion being less than 24 (23.97) *per cent.* from 1830 to 1840, during which decade alone it was *less* than what I estimate the average *natural* increase of the whites. I see no reason for this small increase, or of that of the total colored (23.40 *per cent.*) in the United States during this decade. The census itself may have been imperfect. The greatest proportion of decennial increase of the slaves (35.79 *per cent.*) was from 1800 to 1810, during which it was about 11 *per cent.* more than the above estimated average *natural* increase of the whites in the whole country, and over 5½ *per cent.* more than the *actual* average increase of the whites in the slave states for the last four decades. It should also be observed, that during this decade (from 1800 to 1810) the increase of the total colored was even larger, amounting to 38.52 *per cent.* It should be borne in mind that during this decade the *slave trade* was prohibited.

The decennial average increase of the slaves in the slave states, during the first 20 years, was 33-42 *per cent.*, and during the last 40 years 28.43 *per cent.*, or 5 *per cent. less*, showing most clearly the effect of the slave trade in increasing, and that of its prohibition in diminishing the number of slaves. As the time approached for the prohibition to go into effect, the zeal for the importation of slaves was likely to be stimulated by motives of interest; and hence the greater increase of them in the first two, and particularly from 1800 to 1810, than in the last four decades; for it is to be presumed that since the commencement of the year 1808, few or no slaves have been introduced into the United States.

The average decennial increase of the slaves in the slave states, during the sixty years, was 29.30 per cent., and in consequence of the decrease approaching to an extinction of slavery in the free states, it was 28.42 per cent., or nearly one per cent. less in the whole country.

It is worthy of remark, that the second greatest decennial increase of the slaves in the slave states, amounting to 32.02 per cent., was from 1820 to 1830, the decade in which the State of Missouri was admitted into the Union without restriction on slavery.

The increase of the *total colored persons*, is the combined result of that of the free colored and of the slaves; and for each decade it varies according to the different numbers and proportions of the two classes; the proportions and also the averages being much less in the free than in the slave states. We also find the average decennial increase larger in the first twenty years than in the last forty years, showing the effect of the slave trade on the increase of the colored population. Since 1810, the greatest decennial increase of the total colored in the slave states and in the United States, was from 1820 to 1830, in which decade the State of Missouri was admitted into the Union without restriction.

Of the whole colored population of the United States, the number of the slaves has been, on an average, nearly eight times that of the free colored. Now, the free colored, so called, are in all the states, in a position, both civilly and socially, calculated to depress them; and they are, moreover, excluded from exercising the right of suffrage at the ballot box, and of holding office, either by provisions of the constitutions, or of the laws in all the states, except Maine, New-Hampshire, Vermont, Massachusetts, Rhode Island, and New-York—(in the last they are allowed the right only with requisitions, not imposed on the whites.) The aggregate of the free colored, from 1790 to 1840, according to the census, in these six states, was 243,001, or about 1 to 42 of the whole colored population of the United States; and in these states the number is now diminishing, both absolutely and relatively. In view of these facts, the small freedom allowed to the free colored, so called, is merely nominal, and may be entirely neglected in our calculations; and we may consider the whole colored class as a class by themselves, and substantially void of the direct exercise of political power.

The average decennial increase (28.51 *per cent.*) of the free colored during the 60 years in the United States, was about the same as that (28.42 *per cent.*) of the slaves; but there was a marked difference between the two classes, in the two periods of 20 and 40 years—during the period when the slave trade was allowed, and the period when it was prohibited. From 1790 to 1810, this increase of the free colored averaged 75.654 *per cent.*, and from 1810 to 1850, it was only 21.52 *per cent.*, showing a reduction of the proportion to nearly one-quarter part. The proportion of the increase of the slaves was diminished from 31.01 to 27.85, or over 3 *per cent.*; arising, as we suppose, from the prohibition of the slave trade. Now, the numbers of the free colored has been sustained from two sources:—First, from their *natural* increase; and, secondly, from manumissions. Now, during the sixty years, slaves have obtained their freedom in various ways, some by purchase, and others by the favor of their masters or owners. I may also add, as a third source, some slaves have fled from their masters, and if found in the free states they would be numbered in the censuses with the free colored, though really slaves under the laws of the state from which they fled. Notwithstanding these auxiliary sources of increase, additional to the natural increase of the slaves, the decennial increase of the free colored was only about the same as that of the slaves in the 60 years; but we find a most marked difference of average increase in the last four decades, that of the free colored being only 21.52, and that of the slaves 26.99,—a difference of nearly 5½ (5.47) *per cent.* on an average in each ten years.

During the four last decades, the causes, presumed to be free from adventitious circumstances, have had comparatively free scope to operate, and have shown their proper effects on the increase of numbers of the two classes, and their results may serve as a guide to the future. With all the means of emancipation to increase the numbers of the free colored, their average decennial increase has been only 21.52 *per cent.*, while that of the slaves, from whom there have been taken many to sustain the increase of the free-colored, to 21.52 *per cent.* only, has been 27.85 *per cent.*, or nearly 6½ *per cent.* more. Had not the number of the slaves been reduced by emancipation and flight, their average decennial increase would probably have risen to at least 28.42 *per cent.*, the average decennial increase for each of the six decades.

It is well known that the numbers of the free colored have been sustained by accessions from the slaves; and we have specific evidence on this point, derived from the Seventh Census, from which it appears that during the year preceding June 1, 1850, 1,467 slaves were manumitted, and 1,011 were fugitives from the slave states, making a total loss of 24,78 for one year. Had the loss been the same in each of the ten years to 1850, the number in this decade would have been 24,780, which is more than 4 *per cent.* of the slaves in the slave states in 1840. Had it continued during the three preceding decades, it would, in the 40 years, have amounted to nearly 100,000, and have reduced the average decennial increase of the free colored from 1810 to 1850, from 243,234 to 144,114 or less, and with that reduction the average would have been 12.74 or less, instead of 21.52 *per cent.* This estimated loss to the slave states of 24,780, by manumissions and escapes from 1840 to 1850, exceeds the increase of the free colored in these states by nearly three thousand (2,969), and their increase in the free states by 2,675, and reduces their increase in the United States to 18,636, or to (4.82) less than 5 *per cent.*, to which a small addition of perhaps one *per cent.* should be made on account of emigrants to Canada and Africa. Thus it appears evident that the *natural* increase of the free colored in the United States, during these ten years, has not exceeded about 6 *per cent.*, and renders their condition as to numbers from their own resources, *stationary* or nearly so, a most important fact in their history, and indicative of their destiny.

A few free colored persons have emigrated from the United States to Hayti and to Liberia since 1810, reducing somewhat their increase, as shown in the censuses. The number, however, has not been large; neither does there seem to have been many slaves or free colored persons who have gone from the United States and settled in Canada. No official account of any considerable number in that province has been published. It should also be recollected that the Seventh Census of the United States was taken June 1, 1850, nearly four months before the fugitive slave law, so called, was passed, and of course none had fled out of the country at the time of taking the census, from the fear of the operation of that law.

It seems from the above statements and views that the *natural* increase of the colored population of the United States, that is, the *surplus of births over deaths*, is very small; and that the small *actual* increase, as shown in the decennial enumerations, has been in a great degree drawn from the *slave* population; and that hereafter, as things now are, and as they are likely to be, the free colored population will of themselves do little more than keep good their numbers, if continued in the United States. In all parts of the country, whether north or south, east or west, they have not an equal chance, in the pursuit of happiness, with the whites. They are everywhere excluded from very many of the more elevating and profitable employments. Laws are proposed in many of the states, in both divisions, forbidding the settling of colored persons within their territories, or even remaining there, threatening them with slavery, or to remove them from the state by force, (laws which in our opinion are opposed alike to the constitution and national sovereignty of the United States, and to the spirit and express purpose of the revolution.) The consequence is, they do not anywhere stand erect, and on a platform of equality with the whites, and do and must necessarily feel this degradation; and to them there is a life of poverty, of depression, of ignorance, and of decay only. Even notwithstanding all who may have come from other states and from other countries, the census of 1850 shows that in the ten preceding years there was a loss of 91 free colored persons in the New England states, and one of 2,090, or over 4 *per cent.*, in New-York.

Thus it seems that there are properly but *two classes of persons*, or perhaps we should say *two races of persons*, in the United States—the whites and the blacks, the European and the African, including the mixture of blood with the whites. The African has been degraded and in bondage from time immemorial. The race has not yet raised itself to be on an equality with the European, and is placed in circumstances of depression, from which there appears no chance of rising to an equality with the whites.

Thus it seems that the *natural* increase of the colored population of the United States can be expected to do very little more than preserve their number, in such a state of things as now exists and is likely to exist in this country. They seem to be doomed to perish in a state of freedom, falsely so called, among a people whose feelings and whose prejudices loathe fellowship with them, and where the whole structure of society is set against their equal participation in the blessings of the land; and it will be found that past experience, especially from 1810 to

1850, in both sections of the country, indicates this doom to the free colored race. We may suppose that two races, with equal advantages, cannot flourish equally together; one must prosper more than the other; the stronger and more favored must predominate, and the other must be depressed, and languish and perish. Can the free colored race be saved, and be made to prosper by *emigration*, to some region, as to Africa, where, under the protection and fair treatment of civilized and Christian nations, they will receive, and be benefited by the contributions of benevolent individuals, and where, under equal laws, and with a government of their own, they will be free from a sense of inferiority, and from the influences that depress and keep them in a state of degradation; where, in a word, they will feel and act like men? This is a most important question to the philanthropists and to the statesmen of our country; and we have now arrived at a point of time when this question addresses itself to Congress and to the whole people of our land. There are properly but two classes of persons in the United States,—the whites and the colored, those of European extract, and those of the African race, with various shades of mixture. Of the former, the Anglo-Saxon race, the most numerous, and their influence in shaping the nation by far the most efficient, in whose ancestors the spirit of liberty has been contending with the assumptions of power for centuries, and whose fathers, by the revolution of 1774, established a system of government for themselves, which has not yet rooted out the institutions of oppression, which the British government, in accordance with the semi-barbarism of the times all over the world, established and encouraged for gain, and refused to relax, over a feeble and depressed race which had been kidnapped in Africa.

The American people, as at present constituted, I mean the *white* population, are characterized by energy, skill and enterprise. The events of former times and the experiences of former days, from the first settlement of the country, operate to make them feel that they are destined to become a great nation. They plan with boldness, and persevere in their labors with confidence of success. They alone are citizens and men in this great and growing republic, which extends from the Atlantic to the Pacific, and from the St. Lawrence to the Rio Grande del Norte. They feel that in the midst of them there is an inferior race, most of whom are declared by the general sentiment, and by law, to be unworthy of personal freedom, and fit only to be slaves, or at best, in a subordinate and degraded position in society. That few who are nominally free, are scattered over the land, degraded in the community, despised by the slaves of their own color, and in this land of liberty and of abundance, get hardly the necessaries of life. They live from hand to mouth, and merely subsist without improving their condition, and without hope of improving it.

The rest, amounting to nearly eight times the number of the free colored, are provided with food and clothing, in a luxurious climate, subject to tasks lightened by the spirit of modern civilization and of liberty everywhere increasing in the world, and are more favored than usually belongs to the lot of bondage in any other country or age. Thus supplied with the physical necessaries of life, without any provident care of their own, they are likely to increase in numbers and physical strength as fast as they have done heretofore. In respect to numbers in the whole country, their increase has averaged nearly 28½ *per cent.* in each of the six decades from 1790, and in the slave states over 29 *per cent.* In the last forty years the average has been in the United States nearly 28½ *per cent.* Assuming this last rate of 28½ as within the surplus of births over deaths among the slaves under the favorable circumstances in which they are now placed and are likely to be placed for years to come, their *natural* increase in ten years has averaged and is likely to average at least 4 *per cent. more* than that of the whites, and this, too, when probably more than one *per cent.* is decennially lost to the slave population by emancipation and escapes. If this be so, whatever be the inequality of numbers at first in the two races, the time must come when the slave population must outnumber and overpower the whites; and whenever a leader rises up among them, there is likely to be between these antagonistical elements, violence of the most awful kind. It is obvious that there is this tendency, as shown by the past, even since 1810; and if it be not contracted beforehand, those who live hereafter must feel the awful consequences. This question, then, of the relative increase of these classes is one of the gravest importance.

There will undoubtedly be from year to year emancipations and escapes from slavery, by means of which there will be sustained, and perhaps increased, the number of the free colored, to whom the civil freedom which they can here enjoy among the whites will be, as it has been, but a name. They must, of necessity, if they remain here, dwindle away and perish; they as a race must become extinct, unless removed to a country which they can call their own, and which they can enjoy as citizens and as men. Thus the free blacks must *perish* or *emigrate*, and the slaves, by continuing in slavery, will become *formidable* to the whites, their masters.

This greater increase of the slaves, arising from the surplus of births over deaths, than that of the whites, averaging 4 *per cent.* in ten years, through the period of sixty years, has amounted to 347,568 in the slave states alone, in which this accumulation is to occur hereafter; and the tendency is to concentrate this accumulation in a *few* of these states; for in some of them the number of slaves is now very little more than it was in 1790. In Delaware, the number has been reduced to nearly one-quarter since 1790, while that of the whites has increased over 50 *per cent.* In Maryland it has decreased nearly one-eighth part, while the whites have doubled. In Virginia their increase has been 61 *per cent.*, and that of the whites 102 *per cent.* In North Carolina it has nearly doubled, and has been more than double that of the whites. In South Carolina it has been more than two and a half times, and nearly three times that of the whites. In Georgia it has been over twelve times, while that of the whites has been less than nine times. In Kentucky the increase of the slaves has been nearly seventeen times the number in 1790, and that of the whites less than twelve times. These two states are among the "new states," and have had a rapid growth during the first half of the period. As to the other slaveholding states, these were mostly a wilderness in 1790, and the comparison can be made only from a later date.

During the last ten years, from 1840 to 1850, the slaves in Delaware have increased over 12 *per cent.*, or a little more than half the rate of increase of the whites. In Maryland their number has continued nearly stationary, while there has been an increase of the whites of 31 1-3 *per cent.* In Virginia their increase has been only about one quarter the proportion of that of the whites. In North Carolina their proportional increase has somewhat exceeded that of the whites; and in South Carolina it has been nearly three times that of the whites. In Georgia and Alabama it has been a third more than that of the whites. In Mississippi and Louisiana it has been about three-fourths that of the whites. In Tennessee one-third more, and in Kentucky and Missouri about one-half only, than that of the whites. In Arkansas it was 135.67 *per cent.*, exceeding that of the whites 25.67 *per cent.*

In 1850, the number of slaves in Alabama and Florida was about four-fifths of that of the whites; in Mississippi and Louisiana nearly equal; and in South Carolina it exceeded that of the whites by 110,361, though the whites exceeded the slaves in 1790 by 33,084, making the difference of 143,445 in the relative numbers of the two classes at the two epochs, and amounting to a number greater by over 3,000 than that of all the whites in that state in 1790. Of the whole number of *whites* in the *slave states* in 1790, 11.02 *per cent.*, or one in ten, were in South Carolina, but in 1850, 4.41 *per cent.*, or 1 in 23 only; and of the *slaves*, the proportions were respectively 16.28 and 12.01 *per cent.*, or 1 in 7 and 1 in 9. Of the whole number of whites in the United States in 1790, 4.41 *per cent.*, or 1 in 23, were in

South Carolina, but in 1850, 1.40 *per cent.*, or 1 in 72 only, showing a great reduction in this element in the 60 years; and of the *slaves*, the proportions were respectively 15.34, and 12.01 *per cent.*, or 1 in 7 and 1 in 9, showing the comparative reduction to have been *less* in the number of slaves than in that of the whites in the whole country, compared with South Carolina.

We cannot tell in what states the slave population will accumulate, or what causes may hereafter operate to draw them off and distribute them elsewhere; but it seems to be not unreasonable to assume, that *the slaves will at some future time accumulate in some states, at least in some large localities*, where, emboldened by their numbers and physical strength, and urged on by a belief of great wrong done them, under the organization of a leader, they will be formidable, and will be likely to wreak their rage upon their masters. In such a case, the general government cannot be indifferent, but must, in obedience to the obligations of the Union, interpose, if necessary, to stop violence and bloodshed, and restore order. The danger of such a crisis arises not from causes without, but from causes within the state or locality in which it may happen. These causes belong to slavery itself. There is a natural tendency in slavery such as exists in the United States, especially among the slaves, to an increase in numbers and in physical strength faster than there is among the whites. There are, in the very nature of the African slave, elements of freedom which cannot but be stimulated into the desire of liberty, by the institutions and advantages which he has around him, open to and enjoyed by all but himself. The desire of freedom, and the spirit of freedom, will be communicated from one to another, till at length all those without the possession of it, will claim it as a right from God, and will be ready to run any hazard in the use of means which promise them the attainment of it.

The institution of slavery is, therefore, a matter of the gravest moment in its relation to the future, especially in that part of our country in which it exists; and if the people are wise, they will in time guard against the momentous dangers which naturally flow from the tendency to a greater increase in the numbers and physical energies of the slave, than of the white population. In this point of view, the subject cannot be a matter of indifference to any benevolent mind. Whatever threatens to produce or occasion an awful catastrophe anywhere among men, all good men pray may be averted. To a certain extent, the sympathies of the whole civilized world will be touched, whenever harm of this kind is apprehended as near at hand, or actually exists. In case of a servile insurrection or war, which the state authorities are unable to stop, the United States, to whom the people have committed the government of the nation, are bound, by the principles of the revolution which made us a nation, to exercise their best wisdom, in "insuring domestic tranquillity," in "promoting the general welfare," and in "securing the blessings of liberty." They are bound to "provide for the common defence," and to "promote the general welfare," limited in their sovereign authority only by the principles of republican liberty, and to shape the government in such a manner as to prevent danger when foreseen, no less than to remove it when it comes. To this sovereign power of the nation, the states, to which it has given existence, and whose laws must be in subordination to Congress, must bow and yield obedience. Congress, by virtue of national sovereignty, with which they are clothed by the people, must interpose to stop such disorder and violence—otherwise we cease to be a nation. Congress must interpose to regulate slavery, when the states which have in charge this local interest are found inadequate to preserve order, or when the local management of it conflicts with the interests or security of the nation itself. The States are entrusted with this local interest, on the presumption that the people within their limits can best determine what will be the most *wise management of it.*

But we confidently believe and expect that hereafter, as has been the case in our past history, slaves will be manumitted and will flee from their masters, and then such will be added to the number of the free colored. Otherwise the free colored will not from year to year much increase their numbers in the United States, and will hardly sustain their own; for the surplus of births over deaths among them will certainly add very little to their numbers. They seemed destined to dwindle away and perish, if scattered over the country north, south, east, or west, ignorant, despised, pennyless, wandering among the whites, who cannot associate with them on equal terms, or among the slaves of their own color, who despise them. In order to preserve them as a race, they must form a community by themselves, and be placed under their own laws, in a country where the experiment may be tried as to their capability of becoming a civilized people. They were kidnapped in Africa over two centuries ago, and have since been held in bondage among a people to whom it has appeared to be an object of philanthropy to aid them in their restoration to the land of their ancestors. In commencing the project of colonizing the free blacks in Africa, there may have been some mixture of interest combined with philanthropy. But very many of the most benevolent and Christian minds all over the country have been interested in this cause, as a most righteous and philanthropic one. The ablest and most discriminating minds have seen in this movement the most satisfactory evidence of great, immense good to be attained by it, and have cordially advocated it. Several states have made appropriations in aid of the enterprise. Even now, while we are penning these remarks, we are glad to see that a proposition has been made in the Legislature of New-York for assisting such persons of color in that state as are disposed to emigrate to Africa, and we should rejoice to see the Legislature of Massachusetts do the same for her own colored citizens. Recently, in the legislatures of several other states, and also in Congress, during the present session, the subject of aiding the colonization of the free colored in Africa has been brought forward, and this fact alone is significative of a strong sentiment in the whole community in favor of this colonial enterprise. We are glad to see it stated in the newspapers that the Virginia House of Delegates have just adopted as a substitute for the bill to remove free negroes from that state, a resolution appropriating $30,000 annually for colonization purposes. Very many private individuals have been warm friends to this object, not in words of approbation only, but by contributions to it as one of undoubted philanthropy—and not a few by large donations and legacies. We wish public attention might be drawn to it in a manner worthy of the good which is likely to flow from a judicious management of its affairs, and an abundance of funds from private and public sources would not long be wanting.

Instead of aiding the free colored people in the United States, as we believe the whites really wish to do, we have with regret seen that in some of the states, and even in some of the free states, where freedom is talked of loudly, and where the desire to spread it is no doubt strongly felt, propositions have been made, which to us seem to be certain to do harm to the colored race, without conferring any important public benefit. It has been proposed to prohibit, by law, their settlement in these states, and to compel or reduce to slavery those who shall not, within a specified time, quit the territory. We are shocked at such propositions, as unworthy of the age, and of the Christian sentiment of the community, as well as opposed to the Constitution of the United States. Were pains taken, and pecuniary means proposed, as has been recently done in the Legislature of New-York, and of other states, with a view to colonize the free colored in Africa, it appears clear to us, that many wanderers would be carried home, at least to the country where their ancestors lived, and to a country where they could live on an equality with their fellows, and with the chance of being saved from extinction as a race, and of being the heralds of redemption to the multitudes now in the darkness of the most degrading heathenism in Africa, and at the same time most important benefits would be conferred upon the people of all parts of the United States in very many ways.

Such a movement would diminish, as far as it went, the number of colored persons in the country—would relieve the country, to some extent, of many persons who are pitiable objects to the whole community, and who, from poverty and necessity, are tempted to pilfer from the whites; and who create uneasiness among, and actually do harm to the slaves themselves. It would aid in the great experiment of determining whether it is possible, by preserving these fragments of the colored race, they could, under the protection of powerful Christian nations, and provided for, and watched over with parental care, by Christians of all denominations, in the course of time become a civilized and Christian nation, with a republican form of government, and equal laws of their own making.

Thus far the American Colonization Society has been deficient in means for transporting and landing in Africa all who have applied for assistance. With the means thus far placed at their disposal, and chiefly by individual contributions, settlements have been made on the coast, and land, several hundred miles in extent, has been purchased of the native tribes; and the success of the colony thus far has been, on the whole, most satisfactory. Along the greater part of the western coast of Africa the land has been purchased, or forts have been erected especially by the British, which render the slave trade difficult. The growth of the colony has been rather slow, considered in respect to the number of emigrants from the United States, which we believe has not exceeded 10,000. But the Liberian government, we understand, extends its jurisdiction over 300,000 people. The emigration, in our judgment, has hitherto been fast enough for the permanent prosperity and stability of the colony. Its growth has, we believe, been healthy, and had it been more rapid, as it would have been with greater means at the disposal of the society, there is danger lest the arrivals would have been too numerous to have been easily absorbed by the infant colony—lest great distress would have attended the influx of greater numbers than could have been well accommodated; and thus the colony would have been built up with less order and less industry, and with a poorer foundation for a thrifty and substantial community.

I have maintained in these numbers the following propositions:—

1. The free colored population of the United States, with all the accessions they receive from the slaves and from a mixture with the whites, have thus far and will hereafter be able to sustain only their comparatively smaller increase than that of either the whites or the slaves, and can by *natural* increase alone do very little more than keep their numbers good from one decennial epoch to another; and there is a tendency in them, living

in the midst of the whites and of the slaves, to degenerate, to dwindle away, and to become extinct as a race.

2. The *natural* increase of the slaves, situated as they are in this country, has averaged, and is likely to average, four or five *per cent.* more in each ten years than that of the whites; this excess of increase would, in sixty years from 1790, have brought the slave population nearer by 350,000 or 400,000 to an equality of numbers with the whites, had it not have been counteracted and reversed by foreign immigration of free white persons. Such being the tendency to a greater *natural* increase of the slaves, the time is likely to come, and must come, when in some slave states, at least in some extensive districts of slave states, the slaves will outnumber and overpower the white population; and there is reason to apprehend that when excited under a leader they will become formidable and dangerous to the peace of society, and it may be to a degree beyond the control of the local authorities.

3. The free colored people of the United States being thus situated, and being thus destined to dwindle away, the best apparent means of saving them as a race, and of enabling them to be instruments of great good to their fellows, now presented to the philanthropist, the citizen, and the statesman, is to aid in their colonization in Africa, where, under the protection of Christian powers, and under the fostering care of Christian benevolence, the trial may be made of their capacity for becoming a civilized and Christian community; and thus, according to circumstances, this enterprise may go on transporting the free colored from year to year to a country of liberty, giving inducements to set slaves free without apprehension of making their condition worse than that of slavery itself, and encouragement to seek and procure freedom for them, with the well grounded hope that freedom will, in Africa, be a *reality* to the colored man and to his children.

Art. III.—FISH AND FISHERMEN.

NORTH-AMERICAN FISHERIES.

The progress of geology and palaeontology has developed the fact, that fishes were among the first animals that inhabited this globe. The idea is now exploded that animals "were successively created in the order of their relative perfection"—the theory of the still unknown, and probably ever-to-be unknown author of the "Vestiges of Creation." The fossiliferous deposits of every age exhibit fossils belonging to each of the four great departments of the animal kingdom; for even in the oldest fossiliferous strata we find fishes,* thus proving that fishes were among the oldest inhabitants of this earth.

It is worthy of remark, too, that, of all the vertebrata known, fishes are, by far, the most numerous, there being, according to Mr. Agassiz, from 8,000 to 10,000 species. There are as many species of fishes as there are of mammals, birds and reptiles altogether. The inhabitants of the sea, therefore, are by far more numerous than those of the land.

It is a too common fault of writers in general to begin by magnifying the importance of their subject; and this is especially true of writers on fish. We are told, for instance, that "fishermen were the pioneers of British and French civilization in America;" that, indeed, the adventures of fishermen, in the new world, gave rise to events of momentous consequence; that their exploits here on our shores keep alive desires which otherwise might have become extinct; that the present greatness of our country may fairly be traced to the character and deeds of those bold fishermen who shortly after the discovery of America frequented its shores; that, "previous to the development of other resources, the fisheries were the life-blood of our commerce; that fishermen were the founders of some of the greatest cities in the world, such as Amsterdam, Rotterdam, and ancient Sidon. That Venice rose from the waves of the Adriatic by the hands of fishermen; that the American revolution of 1776 had its remote cause in the exploits of men engaged in catching cod and mackerel; that the fisheries have been the nurseries of the greatest navies; that "men of the highest rank and of the most shining talents, at one time in the early history of this continent, actually set their hopes and fortunes in the cast of the net and line" for shad and mackerel; that the conquest of Algiers by the French, and the capture of Abd-el-kader were a remote consequence of the French fisheries; that fishes and fishermen, in short, in all ages of the world, have played a prominent part. This may all be more or less true; but yet it is all to be taken with "a grain of allowance." So many stories have been told about fish, that "fish-story" has finally become an expression denoting any monstrous exaggeration in general.

To relate the half that has been written about fish and fishermen, from the day when Jonah was swallowed by a whale, down to the first days of the catchers of cod on our northern shores, would make a book too large to sell readily in these times of cheap publications; though, perhaps, such a work would contain more that is really curious, romantic and useful, than is to be found in the entire mass of the booksellers' trash of the present day. We shall, however, undertake nothing of the kind; but confine ourselves, in this paper, to *the present condition and commercial importance of the principal fisheries of North America.*

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* Agassiz, Principles of Zoology, p. 221.

The French were the first who engaged in fishing on the American shores, and these fishing labors led to their once so extensive territorial possessions in North America—possessions which have now become dwindled down to the two little islands of St. Pierre and Miquelon, in the Gulf of St. Lawrence, both only two square leagues in extent.

The French fished on the Banks of Newfoundland as early as 1504; and those fisheries increased rapidly in importance. In 1517, there were about fifty ships of different nations taking fish on the shores of Newfoundland. All Europe being then Catholic, the rules of the Church increased the demand for fish. The Dutch made themselves immensely rich by supplying Holland with pickled herring, and quite a fish mania raged in many parts of Europe, from the astonishing accounts given by Cabat of the abundance of the fish on the Banks of Newfoundland and other parts of our shores. France, England, Spain and Portugal, all sent their ships to take cod; but the French were the most numerous. In 1577, they employed 150 vessels in the business. This prosperity of France aroused the jealousy of John Bull, who, having hitherto quarrelled with the French about almost everything, now resolved to quarrel with them about fish.—As all know, he succeeded in driving away the French, and in usurping more fishing-grounds than he could well occupy. John Bull is a veritable "dog in the manger"—he could not catch all the cod himself, nor would he let others catch them; and he maintains the same amiable disposition even to the present day. Not able now to catch half the cod on the fishing-grounds of the north, his bellowings are heard ever and anon because we Americans catch cod even in the deep seas, and almost out of sight of land.

In spite of the restrictions of the English in regard to the French fisheries, these continued to prosper, owing to the industry and perseverance of the French under all difficulties. Driven from the shore of the mainland, and only allowed to fish about the eastern end of Newfoundland, they continued to be so prosperous that the envy and alarm of England was again aroused. The French fisheries had so prospered that in 1744 they employed 600 vessels and 27,000 men.* This prosperity was too much for England, and she excited a quarrel with France on the subject, in the same way she is now quarrelling with the United States, namely, by finding fault with the construction of the treaty of Utrecht, whereby the French claims the right (which the English did not question till the French became too prosperous) of fishing in the seas about the isle of

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* The product was 1,500,000 quintals, worth $4,000,000.

Cape Breton. The treaty of Utrecht allowed the French to fish only on the shores of Acadia; but the boundaries of Acadia were not defined in the treaty, and this left John Bull room for so defining it as to destroy the French fisheries of Cape Breton. They declared Cape Breton, though an island, to be a portion of Acadia, the French understanding the name to apply to *continental* territory only. The French construction was the one adopted by all, until it was discovered that their fisheries at Cape Breton were worth $4,000,000 annually. It is so now: if our hardy fishermen, laboring under their present disadvantages, did not still, by superior industry, catch more fish than the English, we should hear no complaint, and the English would have no difficulty in determining the exact meaning of the treaty.

Again, in 1744, England and France were at war; and the first thing thought of, by the English, was the conquest of Cape Breton, the fisheries of which were now so profitable. Massachusetts and some of the other colonies were invited by the English to take part in the expedition against Louisburg, the capital of Cape Breton. All declined except Massachusetts, which eagerly embarked in the undertaking from motives of fanaticism and intolerance. Whitfield was the Peter the Hermit of the day, and preached a regular crusade against the French. "He made a recruiting-house of the sanctuary," and his fanatical adherents carried axes about on their shoulders, brandishing them over their heads, to show with what dexterity they would hew down the images in Catholic churches at Louisburg.* Religious zeal was a powerful adjunct to the military stores of the expedition; and though there is evidence on record of their being influenced by such motives as ambition, revenge, and the love of money, yet it is certain that the Puritan soldiers of New-England thought more of the extinction of Catholicism than of money or even of an honest fame. "A more undisciplined and disorderly body of men," says Mr. Sabine, "never disembarked to attempt the reduction of a walled city."

The fall of Louisburg reduced the number of French fishing vessels in the American seas from 400 to 100, and these were afterwards allowed only to fish off Newfoundland. Louisburg was, indeed, restored to the French in 1748, but they finally lost it again in 1759. By the treaty of 1763, England granted France the privilege of fishing off the eastern end of Newfoundland, and ceded to it the isles of St. Pièrre and Miquelon as places of shelter merely to French fishermen. In 1783 some extension was given by England to the French fishing privileges, and no alterations have been made in them since. There was always a strong party in England opposed to allowing the French any fishing privileges; but the English ministry prevailed against it, at the expense, however, of being charged with bribery.*

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* Mr. L. Sabine's Report on the principal Fisheries of the American Seas, 1852, p. 191 *United States Finance Report*, 1852.

In spite of all opposition the French fisheries in America have continued to prosper, owing to the indomitable perseverance of her fishermen. We will conclude this branch of our subject with the following table, showing the progress of the French cod fisheries since 1814:

	No. of Vessels.	Tonnage.	No. of Men.	Quintals.
1816	—	30,954	8,106	—
1830	377	45,036	8,174	—
1831	302	35,180	6,243	300,000
1833	—	—	10,000	—
1834	—	—	10,000	—
1835	—	—	—	300,000
1839	—	54,995	11,499	—
1841	406	—	11,900	—
1843	400	—	—	—
1847	—	—	12,000	45,000

This table, defective as it is, we compile from the U.S. Public Documents for 1852–3, as reported by Mr. Sabine.

Spain and Portugal engaged for a time in the cod fishery on the Banks of Newfoundland; but they did not distinguish themselves in the business. In 1517 Spain had about 100 vessels, and in 1577 Portugal about 50 vessels, engaged near Newfoundland; but Spain soon found gold-hunting and gold-robbing in South America more profitable, while the diamond mines of Brazil decoyed away the Portuguese. The Spanish and Portuguese have never distinguished themselves by pursuing any laborious branch of industry. Spain has always, in fact, discouraged the pursuit of fishermen. In Cuba, as is well known, the trade in fish was, until very recently, greatly depressed by a government monopoly; and Spain now imports large quantities of fish, instead of catching them herself. The rivers and coasts of Spain and Portugal abound in fish, but all fisheries are neglected by the government. Portugal, as late as 1839, if not now, levied a tax or duty on all fish caught on her shores—a poor way to encourage fishing. Spain and Portugal, in fact, have done everything to discourage industry among their people, and the lamentable consequences are seen in their present condition. During a space of 24 years Portugal imported foreign fish to the amount of more than $39,000,000, although her coasts abound in fish. The Spanish and Portuguese governments are either miserably imbecile, in everything pertaining to political economy, or else deliberate plunderers of public wealth, and of their own people.

We shall now consider the subject of English fisheries in Newfoundland, Nova-Scotia, New-Brunswick, Labrador, and the isles of the Gulf of St. Lawrence.

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*"Junius" charged the English ministry that formed the treaty of Paris in 1763, with bribery, for granting the French fishing privileges.

1. NEWFOUNDLAND.—Newfoundland was the site of the earliest fishing labors of Europeans, after the discovery of America, and they soon became so important as to be the subject of legislative enactments. England encouraged her fisheries in various ways. The first which we shall notice was an act of Parliament, passed in 1548, imposing severe penalties on persons eating *flesh* on fish-days established by the Church. The number of these days in a year was so considerable as to make it a positive encouragement to the trade in fish to enforce their observance. The punishment for the first offence was a fine of 10 shillings, 10 days imprisonment, and abstinence from meat during the same time; while for the second offence these inflictions were doubled. The sick and aged, to whom flesh was necessary, were exempted, on obtaining licences from the ecclesiastical authorities. The next act for the encouragement of the English fisheries, in all parts, was passed in the same year, "making the fisheries entirely free to every inhabitant of the realm."

For the still further encouragement of this branch of industry, a curious act of Parliament was passed in 1563, which provided, "that as well for the maintenance of shipping, the increase of fishermen and marines, and the repairing of port towns, as for the sparing of the fresh victuals of the realm, it shall not be lawful for any one to eat flesh on Wednesdays and Saturdays, unless under the forfeiture of £3 for each offence, excepting in cases of sickness, and those of special licences to be obtained." For these licences, peers were required to pay about $6; knights and their wives about $3; and other persons, $1 50; but neither peer nor commoner could eat beef on the two prohibited days. The religious feeling of those times, in England, is curiously exhibited in the same act, in which, to avoid what the people might consider as "popery," it was provided that, "whoever shall, by preaching, teaching, writing, or open speech, notify that any eating of fish, or forbearing of flesh, mentioned in this statute, is of any necessity for the serving of the soul of man; or that it is the service of God otherwise than as *other* politic laws are and be, then such persons shall be punished as spreaders of false news ought to be." Such was the English way, in those days, of retaining what they affected to loathe as an ecclesiastical law for a "politic law," for the encouragement of trade.*

The observance of the interdictions as to flesh on "fish days," was deemed of great moment, and much was written on the subject. Among the tracts of the times was one by John Erswick, who undertook to demonstrate the "benefits that grow to this realm" from these interdictions. By the English statute book there were 153 days in a year on which British subjects were required to abstain from flesh and to eat fish; and the demand, in consequence, for the products of the sea, was immense.*

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* Sabine's Report.

Charles I. ordered Lent to be strictly observed for the encouragement of the fishmongers; but the breaking out of the civil war put an end to his scheme. Charles II. continued the system of encouragement by granting a lottery for three years, ordering collections to be made in the churches for the benefit of fishing, and removed all port duties from fishing vessels for seven years. To complete the ridiculous system of encouraging the business, all victuallers and coffee-house keepers were compelled each to take a certain number of barrels of herrings yearly, at 30 shillings per barrel, "until a foreign market should be established to the satisfaction of the council." Bounties were also granted; but it was not until 1821 that England discovered the folly of all these regulations, which, in fact, amounted to heavily taxing her own people, that foreign countries, not engaged in the fisheries, might be supplied with fish at prices below their actual cost. In 1821 the bounties were repealed. The entire history of the fish trade of England clearly demonstrates the folly of the protective system still defended by a certain class of political economists.†

The English fishing grounds have ever been, and continue to be, a source of contention. John Bull is a testy, envious old fellow, who cannot bear to see other people prosper. He has quarrelled with everybody about the North American fisheries, and even with his own kindred. In 1771, an act of parliament prohibited the people of New-England from fishing at Newfoundland. During the twenty years preceding 1816, the Newfoundland cod fisheries were exceedingly prosperous, and the profits to those engaged in them were sometimes 50, 60, 80, and even $100,000 in a single season. Many accumulated large fortunes in a short period. We compile from the report of Mr. Sabine the following table, showing the state of the Newfoundland cod-fisheries since 1716:

	Quintals.	Value.
1716	106,952	—
1800	382,000	—
1805	526,380	—
1814	1,200,000	$12,000,000
1815	1,180,661	—
1838	724,515	2,420,000
1840	915,795	2,880,000
1841	1,009,725	3,025,000
1842	1,007,980	2,805,000
1843	936,202	2,660 000
1844	852,162	2.410.000
1845	1,000.333	2 980.000
1847	837.973	2.450 000
1848	920.368	2,455,000
1849	1,175,167	2,940,000

The English herring fisheries, too, are exceedingly productive. The following will show the quantity and value taken of late years:

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* Sabine's Report.

† Report of the Commissioners of Inquiry into the State of the British and Irish Fisheries. 1836.

	Barrels Pickled.	Value.		Barrels Pickled.	Value.
1838	15,276	$53,615	1843	9,649	22.850
1839	20,866	69.200	1844	13,410	33,325
1840	14,686	45,150	1845	20,903	56,170
1841	9,966	31,805	1847	9,907	25,555
1842	13,839	15,595			

Before leaving this part of our subject, we will introduce to our readers another branch of industry, which is interesting and important—the seal fishery, so called, of Newfoundland. The earliest accounts we have of this business do not date farther back than 1795; and it was not carried on to any very great extent until about 1814.

Seals frequent the shores of Newfoundland in the spring. They are taken on the floating ice which is found moving southward in the spring, from the polar regions. The seals go upon the ice to bring forth their young, and are thus carried away to the milder regions by the currents of the ocean. The vessels engaged in the catching of seals, leave Newfoundland to go and meet the ice floating southward. The seals found upon these floating icebergs are quite fat, and over hundreds of thousands of them are annually killed. The vessels are of from 50 to 200 tons burthen, and carry from 15 to 40 men each. They leave Newfoundland in March, and begin to return towards the end of April. On arriving at the floating ice they fasten their vessels to the icebergs, and then go in search of seals, which they easily kill with guns and clubs. The skins and fat are stripped off, and the carcases thrown away. The skins are cured with salt, and the fat affords oil. The business is exceedingly perilous, owing to the north-east winds, which often drive the vessels, anchored in the ice, on shore, causing frightful shipwrecks, with the loss of whole crews. In 1843, 1849, and 1852, the loss of vessels, lives and cargoes, was very considerable. The number of vessels lost in the spring of 1852 was between 50 and 60. The crews are often exposed to the greatest hardships and distress; but such is the profit and intense excitement of seal-catching, that men are ever ready to engage. Having no room for further details, we close with the following table, showing the state of the Newfoundland seal fisheries since 1795:

	Skins Taken.		Skins Taken.
1795	4,900	1838	375,351
1815	141,374	1839	437,501
1820	221,334	1840	431,385
1825	221,510	1841	417,115
1829	280,613	1842	344,683
1830	559,342	1843	651,370
1832	442,683	1844	685,530
1833	501,436	1845	352 202
1834	360,155	1847	436,831
1835	557,494	1848	521,004
1836	381,041	1849	306,072
1837	252,910	1850	400,000

The number of men employed has, of late years, been between 9,000 and 10,000, and the number of vessels about 200. Vessels sometimes make two voyages a year.*

The oil of seals is very considerable, a full-grown seal yielding from eight to twelve gallons, and a small one from four to five gallons. The oil, when extracted before the putrefaction of the flesh begins, is beautifully transparent, inodorous, and not unpleasant in taste. The annual yield of seal oil is from 8,000 to 10,000 tuns.

2. NOVA-SCOTIA FISHERIES.—"No American visits Nova-Scotia," says Mr. Sabine, † without being amazed at the apathy which prevails among the people, and without calculating the advantages which they enjoy, but will not improve. Almost every sheet of water swarms with cod, pollock, salmon, mackerel, herring, and alewives. The proxproximity of the fishing grounds to the land, and to the homes of the fishermen—the use that can be made of seines and nets in the mackerel fishery—the saving of capital in building, equipping and manning vessels—and the ease and safety which attend every operation, combine to render Nova-Scotia the most valuable part of British America, and probably of the world, for catching, curing, and shipping the productions of the sea. All these advantages, however, are comparatively neglected, while the inhabitants complain that we Americans "out-fish" them. They are neither disposed to fish themselves nor to allow us to fish. They appear, however, to be fully sensible of their own faults, and honest enough to confess them. In a late official report on the "Fisheries of Nova-Scotia," made by a colonial officer, we find the following: "From 700 to 800 American vessels are said annually to pass through the Gut of Canso, which usually return home with large cargoes taken at our very doors. There is always a great deal said about their encroachments, and we are apt to blame them that our fisheries are not more productive than they are; and, instead of engaging all our energies to compete with them, we are employing a host of revenue cutters, &c., to drive them from our shores. Every body must see that the Americans are placed under many disadvantages for prosecuting the fisheries in British waters, and that if proper enterprise were employed, our advantageous position would enable us not only to compete with them successfully, but also to drive them from our shores by underselling them in their own markets. But we find that they almost entirely monopolize our deep-sea fishery, while we look idly on and grumble at their success." This honest confession must have been a

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* Sabine's Report.

† Ibid.

cutting rebuke to the Nova-Scotians. The writer talks as if he had a little Yankee blood in his veins.

The following table exhibits the past and present condition of the cod, mackerel, and herring fisheries of Nova-Scotia since 1805:

	Quintals Dry Fish.	Barrels of Pickled Fish.	Boxes of Smoked Fish,	Barrels of Mackerel.	Barrels Oil.	Value.
1805–6–7	81,191	43 299	10,410	—	—	—
1815–16–17	152.698	40,420	65,675	—	—	—
1832	160.640	37,154	8 641	—	2 840	$509,820
1840	327,026	73.788	27,755	—	9,544	—
1845	302.520	54 190	25,522	49.552	—	—
1848	271,475	32,544	34,157	167,028	—	—
1849	241,411	55,570	16,980	133,210	—	—
1850	191,802	47,786	3,234	—	—	—
1851	196,434	163,795	15,409	100,047	—	941,896

The number of men employed in these fisheries for several years of late has been about 10,000. The entire population of Nova-Scotia, in 1851, was 266,117.

3. The fisheries of the Isle of Cape Breton were formerly very productive, while the French occupied it; but since, through the jealousy and dog-in-the-manger disposition of England, the French have ceased to fish there, Cape Breton has greatly declined, and is, in fact, at the present time, the poorest part of British America. Under the French, the value of the fish taken there, annually, amounted to about $4,000,000. They employed 564 ships and 27,000 men. The whole product now is only about 80,000 quintals, and 50 tuns of oil. "The seas of Cape Breton," says Mr. Sabine, "neglected, shunned even, as if a curse rested upon them, and as if the spirits of the slain of a bygone generation hovered over them, *are as rich as they ever were ;* and as safe too for the employment of capital, skill, and labor, as when the successful adventurers of the Catholic French roused all Puritan New-England in a crusade to possess them. Were these seas *ours*, we should soon prove the truth of this remark. * * * * * The harbor is one of the best on the eastern coast, and the situation such as to render access to the fishing grounds in the waters of the St. Lawrence easy."* The latest statistics are only to 1849, in which years the fisheries of Cape Breton yielded only $106,801 worth of fish.

4. PRINCE EDWARD'S ISLAND.—Here is another most rich and valuable field for fisheries, which, however, is almost entirely unproductive through the exclusive policy of England. The waters about this island teem with fish, and especially mackerel. An American vessel, in 1848, took there 80 barrels of mackerel in 2 days. This immense field for fishing is almost entirely neglected by England; while she most studiously, and

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* Sabine's Report, p. 70.

rtainly most stupidly, endeavors to prevent others from fishg there. In 1851, the fish exported from the island amounted only $38,776, but usually the quantity caught is barely suffient for domestic consumption. During the fishing season our essels frequent the island in large numbers; that is, within ree miles of the shore. As many as 600 or 700 of our vessels ve been there in a single year; and in spite of all the disadantages imposed upon us by the present treaty, our fishermen tch ten fish to the English one. Our exclusion from the shores f the English fishing grounds is found to be a great disadvange to the inhabitants of that part of British America, who in 352 petitioned her majesty the Queen "to remove the restricons of the treaty of 1818, prohibiting American citizens from shing within certain prescribed limits on the shores of the land."

5. MAGDALEN ISLANDS.— These are seven in number, in the ulf of St. Lawrence, about 40 miles N. W. of Cape Breton. 'he herring fisheries at these islands are very extensive. In ome seasons there have been taken from 80,000 to 100,000 arrels; and as many as 150 vessels from the United States ave been seen there at once. The quality of the fish is poor. arge seines are used, and hundreds of barrels are often taken t a single haul. Mr. Sabine gives no later statistics than 1848, n which year there were exported from these islands 34,448 uintals of dried fish, 17,574 barrels pickled fish, 4,115 boxes of moked, 21,308 seal skins, and 114,403 gallons of cod oil; the hole to the value of $223,796. The poor quality of the fish is hiefly owing to the careless manner in which they are put up.

6. BAY OF CHALEURS.—The cod fishing establishments of his bay are ancient and extensive. On its shores are some of he oldest settlements in North America. The largest fishing stablishment in this bay is that of Messrs. Robin & Co., foundd in 1768. It exports annually about 30,000 quintals of cod, esides pickled fish and oil. The whale fishery is also carried n to some extent in the Bay of Chaleurs and the adjacent seas. he fish exported from the Bay of Chaleurs annually amount to bout $300,000.

7. LABRADOR FISHERIES.—These are extensive, and are carried n chiefly by the Newfoundlanders, who, averring that the French nd Americans have driven them from their own "bank fishry," resort to Labrador. English and Jersey merchants engaged n these fisheries are established at Newfoundland. There are en or twelve of these houses, and their exports of cod, salmon, nd seal skins amount to about $250,000 annually. The Larador fisheries, says Mr. M'Gregor, have increased six-fold ince 1814. They employ about 20,000 men.

8. NEW-BRUNSWICK FISHERIES.—These fisheries are in a

state of decline, owing to a "want of industry, thrift, cleanliness, and honesty[*] among the fishermen, and not to the presence of interlopers who visit them. From an official document published by the House of Assembly of New-Brunswick, in 1851, it appears that in 1850, the New-Brunswick fisheries in the Bay of Fundy employed[†] 62 vessels, 344 open boats, 55 weirs, and 1,337 men; and that the value of the products amounted to $132,320.

9. Salmon Fishery of British America.—This fishery, which in Canada, in 1786, yielded thousands of barrels for export, now produces only a few hundreds, and the quantity is rapidly decreasing. The export now is very small. The same may be said of the salmon fisheries of Nova-Scotia, which yielded, in 1851, only 1,669 barrels. The salmon fishery of Newfoundland is on the increase, the annual product being now worth about $50,000. Of Labrador, the product of salmon is worth about $40,000 annually.

The decline of the salmon fisheries of British America is owing to the fish having almost entirely disappeared from the rivers, owing, as is thought, to the erection of dams across them. Those streams only, which are unobstructed by dams, and where the water is not muddy, now afford salmon in any considerable quantity. The harbor of the city of St. John abounds in salmon, and the fishing grounds, or stations, which are public property, "are lotted out and sold at auction every year." The number of salmon taken at St. John's, in 1850, was about 32,000, which were sold at one dollar each. Salmon are found in the St. John river, 200 miles from the sea. The only fishery of note on it is that of Neressis, which yields about 2,000 annually. The annual product of all the salmon fisheries of British America is nearly as follows:

	Barrels.	Tierces.
Canada	28	70
Newfoundland	—	1,950
Labrador	—	2,439
Cape Breton	295	—
Nova-Scotia	6,412	340

New-Brunswick ceased to export cured salmon in 1848, and now exports only a few *fresh* packed in ice.

American Fisheries.—Thus far we have treated of the fisheries carried on by the Spanish, French, and English. We now turn to the labors of Americans engaged in fishing in the American fishing grounds. These grounds are the same nearly as those we have already described, with the exception of the coasts of Maine. It is matter of history that the Americans of Boston fitted out fishing expeditions for the banks of Newfoundland as early as 1645. The "great bank," which has been so long resorted to, is about 200 miles broad, and nearly 600 long. The water there is from 25 to 95 fathoms deep, and dense fogs are prevalent. The edges of the banks are abrupt and rocky. The best fishing grounds are between the latitudes of 42° and 46° N. The vessels employed in fishing anchor in the open sea at a great distance from the land, and pursue their hazardous and lonely employment, exposed to perils hardly known elesewhere. The fish are caught with hooks and lines, and are dressed and salted in bulk in the hold, from day to day, until the cargo is completed. The fish taken on the banks are larger than those taken on the shores of Newfoundland, but are often not so well cured.

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[*] Sabine's Report, p. 82.

[†] Report on the Fisheries of the Bay of Fundy, &c.

American vessels have frequented the fishing grounds of Labrador ever since the commencement of the present century. The coast is frequented by our fishermen for a distance of ten or twelve degrees of latitude; and unlike a trip to Newfoundland, a fishing voyage to Labrador is generally pleasant, and full of agreeable incidents even to mere landsmen. The coasts of Labrador are preferable on account of their greater security, and the certainty in general of obtaining a fair supply of fish. The Americans moor their vessels in some harbor on the coast, about the 1st of June, and carry on the fishing entirely in boats until a full cargo is obtained, or until it is found desirable to remove to some new point on the coast where the fish are more abundant. The number of boats employed is about one for every 30 tons of the vessel's register. On the first arrival of the vessel, she is anchored, and her sails and light rigging stowed away. After clearing her decks, and fitting up the boats, a day or two are spent in fowling, and in exploring the grounds, for the purpose of stationing the boats. Each boat has a master, called a *skipper*, and one man. If the fish are abundant, and not too distant from the vessel, the boats are expected, in good weather, to catch each two loads a day. A portion of the crew of the vessel receive the fish as they are thrown on board from the boats, and dress them and throw them down the hatchway to the salters, who salt the fish, and place in layers in the bottom of the vessel. They are afterwards dried, which prepares them for market. The bait used in the Labrador fisheries is a small fish, called *casselin*. Each vessel takes, on an average, ten quintals of fish to every ton of the vessel's register; and very often a fourth or a fifth more.

The cod fishing in the Bay of Fundy differs in many respects from that of Labrador. It commences earlier, and is pursued more irregularly and to a later period of the season; while it yields a larger and a better fish, and, from the greater depth of water and rise of tide,* requires much longer lines. This fishery is pursued principally by the colonists, who live along the shores of the bay, and by the fishermen of the eastern part of Maine. The vessels employed in it, though of great variety, are smaller than those of Labrador and other northern fishing grounds. Most of the fishermen occupy small farms along the shore, as their homes. As many as two hundred boats and fishing vessels are often seen off the harbor of Eastport.

Most of the dun-fish consumed in New-England, and also the dried pollock, hake and haddock, are from the Bay of Fundy. They are taken while fishing for cod. They are often very imperfectly cured, and some dishonest fishermen conceal the defect by destroying the putrid odor by sprinkling on them lime. The hake and haddock are poor fish, and not worth more than half the price of the cod. There is a tradition in some Catholic countries that the haddock was the fish out of whose mouth the apostle took the tribute money, and that the two dark spots near its gills preserve to this day the impression of his thumb and finger.

The mackerel fishery next claims our attention. This dates as far back, at least, as the time of the Pilgrim Fathers. The colony of Plymouth held the mackerel fishing grounds of Cape Cod as public property, and the profits of them were appropriated to public uses. The records show that they rented the fishing grounds to individuals, and that a part of the rent was appropriated for the support of the first free schools established in America.

The mode of catching mackerel is by fly-lines, and the preparatory arrangements, previous to throwing the lines, are as follows:—"The master of the vessel, after reaching some well-known resort of the fish, furls all his sails except the main-sail, brings his vessel's bow to the wind, ranges his crew at proper intervals along one of her sides, and, without a mackerel in sight, attempts to raise a *school*, *scool*, or *shoal*, by throwing over bait. If he succeeds to his wishes, a scene ensues which can hardly be described, but which it were worth a trip to the fishing ground to witness. All hands begin to throw their lines as soon as the mackerel appear, and they often catch sixty a minute, or a fish as often as they can swing the line. The excitement is intense, both of the men and of the fish—of the latter to catch the bait, and of the former to catch the fish, who rush about the boat with a noise, performing a variety of beautiful evolutions in the water. Oftentimes the fishing ceases in a moment, and as if put an end to by magic; the fish, according to the fishermen's conceit, panic-stricken by the dreadful havoc among them, suddenly disappear from sight. Eight, ten, and even twelve thousand have been caught out of a single *scool*, before the panic flight.

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* The tide rises, ordinarily, in the Bay of Fundy, about 22 feet.

The bait thrown over to attract the fish is usually composed of small mackerel, or salted herrings, cut in small pieces. It was formerly the practice to keep one man on deck cutting bait on a block with an axe; but Yankee ingenuity has invented what is called a *bait-mill*, which now grinds out the bait with wonderful speed. The mill consists of a box, in which revolves, by means of a crank, a roller armed with knives, arranged in rows so that they pass between another row of knives, sloping obliquely downwards from the side of the box towards which the roller turns. The fish, dropped in between the knives from above, come out at the bottom cut into minute pieces of uniform size ready for the hook. The bait-mill is now in general use.

When the catching ceases, the men immediately commence the work of dressing, washing, salting and packing, the fish being allowed to soak in water only a short time before being packed, as they are easily tainted.

Mackerel first make their appearance on the coasts in the spring, but they have no regular haunts. As the season advances, fishermen generally pursue them to the north and east, taking them in the Bay of Fundy in July and August, in the Bay of Chaleurs in September, and in the Gulf of St. Lawrence in October.

The cod and mackerel fisheries carried on by our fishermen have for many years been on the decline, owing to causes not fully explained, but probably from the fact of the existence of a considerable foreign competition, which is maintained by the greater cheapness of foreign labor; and another obstruction is the construction of late put upon the treaty of 1818 with Great Britain, regulating the fishing privileges. This construction has proved ruinous to our fishing interests. In 1845, the value of our exports of codfish was $808,353; in 1851 it is reduced down to $367,729. The decline in the exports of pickled fish is also marked. In 1846 we exported 57,060 barrels; in 1851, only 21,214. During the same time, the *importations* of fish have been on the increase. In 1840, only 18,018 barrels of pickled fish were imported; in 1848 the importation was 122,594 barrels; and in 1851 it has increased to 145,368 barrels.

Independently of all treaty obstructions, the mackerel fishery is always fluctuating and uncertain. Serious depressions and ruinous losses are not uncommon. Success, says Mr. Sabine, does not, in this business, depend on skill, industry and capital alone. The appearance of the fish is so uncertain that it is quite impossible to say when and where they will appear; and besides, the quality of the fish in some years is so poor as to afford no profit. To all this it must be added, that the English often are successful in catching fish, when our fishermen, laboring under great disadvantages, fail; and thus the English are enabled to glut our markets. The movements of the English of late, would seem to show that they intend, if possible, to destroy our fisheries altogether, so that, under our present laws, they can have a full monopoly of the fish market in our ports. Our most enterprising citizens engaged in the fisheries have, in consequence of so many discouragements and losses, abandoned the business one after the other, while, as the increase of imports shows, the English have been steadily advancing towards a complete monopoly of it.

At present, Gloucester, in Massachusetts, is the great mackerel market of the country; and the merchants of many of our principal cities have agents there to purchase and ship for them.

The mackerel fishery has greatly declined also. In 1848, 300,000 barrels were caught; in 1852, 197,748 barrels. The importation of mackerel has been steadily on the increase since 1821. In 1840, 11,823 barrels were imported; in 1851, the importation had increased to 102,638 barrels.

Herrings are found along the coasts, and in the bays and rivers, from Maine to Georgia. These fish were exceedingly abundant formerly, and the supply during the revolutionary era was considered inexhaustible; but since 1783, the herring has abandoned many of its old haunts. Washington, in describing his Mount Vernon estate to Arthur Young, remarks, that its margin was "washed by more than ten miles of tide-water," and that "the whole shore was one entire fishery." Herring were formerly very abundant in the Potomac, and are so still, at times. In 1844 vast numbers of herring were taken on both sides of the Potomac, from Alexandria down. In 1851, in the Potomac, 14,000, 25,000, and even 95,000 herrings, says Mr. Sabine, were taken at a haul.

The coasts of Maine are the great herring fishing grounds. They are taken with dip-nets. The quantity exported from East Maine often exceed 80,000 boxes per annum, besides some thousands of barrels of pickled.

The Magdalen Islands also are surrounded by herring, where our fishermen take, annually, about 40,000 barrels. The halibut fishery, carried on at George's Bank, is a new and often profitable enterprise. The halibut weighs from 50 to 200 pounds. In 1852 there were 75 vessels engaged in the business from Gloucester alone, and the value of the halibut caught in 1851, was upwards of $60,000. The business is exceedingly dangerous, and hardly a season passes without appalling disasters.

The fishing business of the United States is carried on almost entirely by Maine, New-Hampshire, Massachusetts and Connecticut, exclusive of the whale fishery. These states employed, in 1850, 11,860 men, and a capital of $2,941,315. The amount of codfish taken was 407,814 quintals; and of mackerel, 252,769 barrels; the whole valued at $3,067,655.

The late interference of the British government with our fisheries, has been attended with immense loss to our citizens engaged in them. Mr. Sabine estimates that in 1852 the citizens of Gloucester, Mass., alone, suffered a loss during the season of at least $115,000, aside from the wreck of vessels and the ordinary casualties of marine enterprise. "The whole of this large loss," says he, "I attribute to the course pursued by the colonial authorities and the officers of her majesty's ships of war. * * * The loss to all New-England from the same sources of annoyance and interruption to our flag, was a quarter of a million of dollars ($250,000) at the lowest computation. Surely our fishermen cannot long bear this state of things without becoming beggars."

Our present laws regarding the American fisheries are very defective, and, as all statistics will show, they operate very injuriously and ruinously to our citizens; while, on the other hand, they favor greatly the English and French, so much so that the former have monopolized the export trade almost entirely. The President, in his annual message for 1852, observes: "By the revenue law of 1846, the duties on colonial fish entering our ports were very greatly reduced, and by the warehousing act it is allowed to be entered in bond, without payment of duty. In this way colonial fish has acquired the monopoly of the export trade in our market, and is entering to some extent into the home consumption." But notwithstanding this favorable state of things for England, in consequence of the liberality of our laws, how does she reciprocate? Not by favors and the display of a liberal spirit, but by an open threat of violence, and the maintenance in our seas of an armed fleet to ruin our fishing entirely, by driving the fishermen away! Not content with almost a monopoly of the business, through our too favorable laws, England is now determined, with her characteristic grasping disposition, to repay our liberality with ruin to our fishermen.

It is quite time that the treaty of 1818 will bear the construction which England puts upon it—a construction, however, which in fairness ought not to be insisted on, since it was not contemplated by our government when the treaty was made; nor has it been insisted on by England for 25 years, until very recently. England now sees that, by maintaining that construction, she can ruin our fishing interests, and complete her monopoly of the business. The whole course of England's procedure is unfriendly, illiberal, and mean. Nay, more; it is base ingratitude, since she makes such a return for the liberal favors which our laws extend to her.

The interest and the honor of our country require that something decided, positive, and speedy, be done in relation to this matter. Nor is it difficult to say what should be done. We have only to cease all negotiations on the subject—all further talking and expostulation—and to immediately repeal all those laws which have enabled England to drive our own fishermen out of our own markets, and establish in our own ports a monopoly of the fish trade. Such a course would immediately bring John Bull to his senses, and teach him the meaning of the word gratitude.

We regard the treaty of 1818 as null and void, under the new construction put upon it; for that construction not having been announced or contemplated when the treaty was ratified, and only brought forth and urged a quarter of a century after the ratification, it is a new element which our government has not agreed to receive, nor has she ever acted upon it. If England always understood the treaty as she now understands it, why has she suffered us to violate it openly for a quarter of a century? England has too often played this game of putting new and ingenious constructions on her treaties, and then boasting of her having overreached in diplomacy. The Bulwer and Clayon treaty is a "case in point," as the lawyers say. All we have to do, in the present case, is to repeal the present fishing privileges, which England now enjoys in our ports, and then she will begin to see the necessity of pursuing a more liberal, consistent, and honorable course towards us.

The facts and statistics contained in this paper, are chiefly derived from the very able report of Mr. Lorenzo Sabine, of Massachusetts, "On the Principal Fisheries of the American Seas," published by order of Congress in 1853. We have made free use of it, and have also consulted McCulloch, McGregor, and De Bow's Industrial Resources, vols. 1 and 2, to all of which works we would refer our readers.

Art. IV.—BANCROFT'S HISTORY OF THE UNITED STATES.*

The discovery and colonization of the New World is beyond all doubt the most important era in the history of the human race, with the sole exception of the introduction of Christianity among mankind. This is the real point which separates ancient from modern times; the point at which the maxims of government underwent a decided change; the point at which the primitive world passed away, and at which an order of things began to exist from which our present state of society has been deduced in accordance with the regular and silent laws of human progress. We do not mean to say, however, that the discovery of America was the cause of all this. The mighty movement had long before commenced in Europe. Out of the decay and corruption of feudalism had sprung forth a young and vigorous life. The expedition of Columbus was but one of the effects of this new energy. It is difficult to determine at what exact period darkness brightened into twilight, and, therefore, as the commencement of an era, we assume the moment when twilight brightened into day.

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* Bancroft's History of the United States. 5 vols. Boston: Little, Brown & Co., 1852.

Until recently, we on this side of the Atlantic have had nothing to offer in competition with that splendid band of British historians, whose works have become classics in the language. A few dry and barren annals, and a few turgid party pamphlets, comprised our whole stock of historical literature. Weem's Life of Washington was the only biography of the father of his country that was widely circulated. The best history of our own revolution was written by a foreigner, and in a foreign language. Our literary attempts were regarded with supreme contempt by the intellectual aristocracy of London and Edinburgh. "Who reads an American book?" was asked with a scornful sneer. And, in truth, much of this contempt was deserved. We were as yet but a nation of pioneers. It could not be expected that men who had gone out with the axe and the rifle, and had built for themselves homes in the wilderness, would have much desire or much opportunity to cultivate their minds. Even when this generation had passed away, the intellects of that which succeeded it did not attain to that degree of culture necessary to produce literary works of the highest order. While our republic was yet young in years, and while its population was yet sparse, political life absorbedall the talent of the country. When the offices of the federal and state governments were filled, few men of distinguished abilities were left unemployed. No starving poets wandered homeless through our streets. No miserable essayists, depending on the whims of publishers for their daily bread, scribbled for our newspapers. There was in this country no band of educated men to whom knowledge was a bitter curse—from whom political preferment was rigidly withheld—to whose lips, thirsty with ambition, the cup of Tantalus was ever presented by the consciousness of merit. Here the road to wealth and fame was opened to all alike, and the effect of such an unlimited competition was to prevent the formation of a class of men exclusively devoted to literary pursuits. There is something fascinating in political life, and men of superior talent are ever inclined to abandon the monotony of literature for its whirl of continued excitement. Does a young man become conscious of superior abilities? He regards high office and political distinction as the El Dorado of all his hopes, and makes the legal profession but a stepping-stone to what he considers a loftier sphere. Amid the strife of this arena, he has little leisure and little inclination to apply himself to literature. The fierce excitement of the electioneering campaign, puts a candidate in a frame of mind which is very far from being the proper one carefully to examine historic evidence, and nicely to balance historic authorities. Clio is not to be worshipped amid the shouts of a mob drunk with party spirit, nor in a hall of representatives where is for ever going on the fierce struggle of interest against interest, and of section against section; where, among hot words, and blows, and deadly weapons, are framed laws for the government of a continent. It is in the quiet study, with nothing to disturb, with books, and maps, and manuscripts yellow with age, that history must be written.

Our republic had not yet emerged from its heroic age. Our citizens had been thus far almost exclusively men of action. Public sentiment incited them to act rather than to write history. High order of intellect was yet at a premium. No haughty nobility looked with a stare of contempt upon the efforts of the humble. No purse-proud aristocracy repressed with iron hand the hopeful struggles of poverty. An energetic youth, who had picked up his knowledge in odd corners, might make a lucky speech on the lucky side of a question. That speech might send him to Congress. Once before the popular sight, a little management might keep him there, and honors and offices and emoluments were within his grasp. Who would sit down in his quiet study, and endeavor with toil and pain to extract truth out of a mass of contradictory and lying authorities, when the same energies directed in another channel might make him the ruler of a continent, the arbiter of the world? That restless activity which has heretofore characterized the American people has had a very decided tendency to deter and unfit them for purely literary pursuits. The talent and energy of the East was engaged in opening up new channels of commerce with the nations of the old world, beneath the suns of the tropics and among the icebergs of the pole. The talent and energy of the West was engaged in subduing the forest and its wild inhabitants. The enterprise of the East had carried the American flag through the sands of Africa, and raised it in triumph on the walls of Derne. The enterprise of the West had carried the same flag far beyond the Rocky Mountains to the unknown shores of the Pacific. Our country was yet too young in years to have a history of its own, and our colonial annals were then no grateful theme. We had obtained our own freedom too recently to philosophise upon the record of our servitude. It is not in the buoyancy of youth that men or nations look back on the past. It was not when the Roman legions went forth to conquer Etruria, or Samnium, or Carthage, that Livy recorded their achievements. And it was not until the fiery instability of boyhood had settled into the calm resolution of maturity —until we had proved our manhood in two deadly struggles against the strongest nation on earth—until we had defied France in the zenith of her glory—in fine, until we had a history of which we had reason to be proud, that our history began to be written.

But the heroic age has passed away. Our frontiers have receded from the Alleghany to the Mississippi, from the Mississippi to the Pacific. A marked change has taken place in the habits of the people on the Atlantic slope. The wild and reckless forms of pioneer life have given way to the customs of a cultivated community. Lynch law and regulators, and committees of vigilance, still powerful on the frontiers, have departed forever from the law abiding citizens on the East coast. The political market has been glutted, and many a powerful mind has turned away in disgust from the noise of factions, to drink in silence of the pure waters of literature and science. Thus has commenced the first era of American historical literature.

We think that the works of at least three of our historical writers will be enrolled among the classics of the language. Irving, Prescott, and Bancroft, stand on the same pedestal of fame with Hume, Gibbon, and Macaulay.

It had been the belief of nearly all the learned men of antiquity, that far to the westward, across the wide expanse of the Atlantic, lay in primeval beauty a new world. During the time of the early Greek poets, when Eastern civilization had just dispelled the barbarism of Greece, the West was regarded as a land of mystery, a land of Cimmerian darkness, where the spirits of the dead found their gloomy abode, and where dwelt those fearful monsters, half god and half demon, that fill the records of Greek mythology. There Plato erected his imagined commonwealth, and peopled his Atlantis with beings too pure and happy for the contaminated soil of Europe. Thence, as ancient legends declare, crowds of Atlantic warriors poured in at the pillars of Hercules, and Europe and Africa, as far as the Tyrrhenian Sea and the banks of the Nile, yielded to their victorious arms. There were the Isles of the Blessed, visited by eternal spring, and clothed with perpetual verdure, where the spirits of the good and the brave rested in a happy Elysium. Such knowledge had the Old World of the New.

It was not for the polished Greek or the warlike Roman to originate the spirit of modern commercial enterprise. Far to the north of the Mediterranean, in regions bordering on eternal snows, where the Northern Aurora turns the long winter night into day, dwelt a barbarous race, described by Tacitus as being even then celebrated for skill on the ocean. It was this race that furnished the mariners who explored the great western seas which the sailors of Tyre and Carthage had feared to penetrate. After exploring the inland gulfs of the Baltic, the sea kings of the North steered boldly out into the wide Atlantic. The shores of Britain and France were first visited and ravaged by their victorious fleets. Gathering strength and boldness by success, they entered still farther. "The dragons of the wave" sailed among the icebergs of the polar ocean, and anchored in the transparent waters that encircle the isles of the Mediterranean. The Ultima Thule of the Roman world was discovered and colonized; and about the middle of the ninth century these daring mariners cast anchor on the rock-bound coast of Iceland, and beheld with superstitious awe the eternal fires of the abyss rise up amid the eternal snows of the pole. The Northmen were as yet pagans, and the stormy seas to the northwest of Europe were the vast arena in which were enacted the scenes of their mythology, wild and terrible in its daring sublimity. There was the domain of Oden, whose voice was heard by the Sea King amid the crushing of icebergs and the fierce howling of the northern blast. There was the Maelstrom with its enchanted circle, within which human strength and human skill were powerless. There the huge sea serpent, which encompassed the earth in its folds, lifted up its head amid eternal solitudes. Nothing could withstand the fierce energy of these lords of the wave. Wherever they came, they came as conquerors. Their race was the nobility of Europe. A Northman king ruled over England. A Northman duke forced the heir of Charlemagne to fly ignominiously from his capital. In a far southern land, where the climate was almost tropical, a Northman chief rolled back the tide of Mohammedan conquest, and founded a kingdom among the orange groves of Sicily. Northman warriors stood around the throne of Byzantium, and upheld the tottering empire against internal convulsions and external pressure. In the land of Islam, a Northman pilgrim seated himself on the throne of Syrian kings, and swayed his sceptre beneath the voluptuous groves of the Orontes. In the far East, Northman adventurers penetrated among the Tartar hordes on the banks of the Volga, and laid the foundation of an empire, which was one day to stretch its colossal bulk from the Euxine to the Pacific.

During the ninth century, the Northmen mariners first beheld the shores of Greenland. In the following century a hardy colony occupied its coasts, and a flourishing little community sprang up along the bays and inlets, overhung by cliffs of granite and ice, which extend from Cape Farewell to the unknown North. From some unexplained cause the climate grew colder. The drifting ice filled up the inlets and blockaded the coast, so that succor and escape were alike impossible. After the lapse of ages, the harbors again opened, but the colony of East Greenland had disappeared, and left not one behind to tell of its fate. West Greenland has been more fortunate. There a slender settlement, in spite of cold, and famine, and savages, has lingered on to the present day. We have no evidence that the enterprise of the Northmen ever carried them beyond the limits of Greenland. The Antiquarian Society of Copenhagen has labored long and earnestly to prove that New-England owes its discovery to the Sea Kings of the North. But after a most extensive examination of ancient records, all that they have been able to offer amounts to this: That after the colonization of Greenland, some adventurous mariners, wandering far to the southwest, came upon a fruitful country whose coasts were covered with vines; that this country was visited for many years by the crews of many ships, and finally abandoned, so that the name and memory thereof were lost among sea-faring men. We agree with Mr. Bancroft in thinking this story very improbable. No helpless boat's crew, abandoned to the mercy of wind and tide, could ever have drifted from the northern seas on the coast of the United States. The gulf stream would inevitably have thrown them upon the coast of Ireland or the northern isles. The description of Finland, which is extant, will apply in climate to no country north of the United States; and it applies about as well to New-England as to the Azores or the West Indies. There is not to be found along the whole coast of America the least trace of discovery or occupation by a civilized or even by a half-civilized race, which could possibly have been left by the Northmen. Had they penetrated so far south as New-England, they would not have dwelt so contentedly among eternal snows while a fairer land invited them to its shores. Nor does it seem likely that that bold race of mariners, who so fearlessly encountered the icebergs of the North and the hurricanes of the South, should tamely withdraw from a land whose skies were so much brighter than those of their own Scandinavia.

The honor of the discovery of the Western World belongs to a native of a milder climate than that of the rugged Northman. It was the result of the spirit of urban liberty, the first dawn of modern civilization. Pisa, Genoa, and Venice, successively occupied the same rank on the waters of the Mediterranean, that Scandinavia occupied on the waters of the Northern Atlantic. Though destitute of that ferocious energy which carried the

Northman far into the domains of eternal winter, the Italian excelled him in commercial enterprise. Italian fleets swept the inland seas, from the Pillars of Hercules to the mountain barrier of Caucasus. The Italian merchant, clad in the loose flowing robes of the East, with Saracen turban on his head, and Saracen scimetar at his girdle, mounted on the swift dromedary, carried his load of florins over the deserts of Arabia, trafficked at the courts of the Khalifs of Bagdad, purchased diamonds at the fairs of Golconda, and silks in the bazaars of Delhi. From such an adventurous stock sprang Christopher Columbus. But soon after the birth of Columbus, the sceptre of the seas had passed away from the Italian republics. They had performed their alloted task as the pioneers of Southern Europe, and their mantle had fallen upon an obscure nation living on the Western verge of the known world. The mariners of Portugal soon outstripped those of Genoa and Venice in daring enterprise. They sailed along the coast of Africa far into the regions of the burning zone. They stretched into the Atlantic, and in the Azores discovered the very portals of the Western World. But neither for Italy nor for Portugal was reserved the honor of its glorious discovery. This honor was to be the destiny of Spain. Into her lap was to be poured the countless treasures of the New World; and centuries afterward, impoverished and degraded by those very treasures, she bitterly rued the day that ever an exploring ship of hers had crossed the Atlantic.

The discovery of America was mainly the result of the efforts of a single man, and that man was Christopher Columbus. His mind was moulded in the mould of greatness. His achievements were not the result of fortunate accident. Fortune did nothing for him. He did all without her smiles, even in spite of her frowns. The annals of the world nowhere tell of an energy and perseverance, stronger and yet more calm in its working. He who wishes to obtain a true insight into his character, must study him, not when, in the ardor of youthful hope, his mind grasped at the idea of discovering a world; not in that bright autumn morning, when all his hopes were realized, and when he saw the palm groves and the coral reefs of Guanahani reflected from the bosom of the West Indian seas; not in that hour of proud triumph when, in the court of Barcelona, in the midst of the hidalgos of Spain, he stood a noble among his peers. In the times of neglect, and of hope deferred, that maketh the heart sick, when he was obliged to stand day after day in the antichambers of the court of Castile,—when John of Portugal basely attempted to swindle him out of his hard earned honors,—when he suffered base insult and imprisonment in the land which his own intellect and his own arm had given to Spain,—when, poor, aged, and broken with infirmities, he retired to die in obscurity;—in these circumstances must we seek for the true manifestation of his character. His deep religious enthusiasm gave him an impulse such as few heroes have possessed. In this we find the key to all his life. It entered into all his designs, and gave him new energy for their execution. He went forth, in his own eyes, as an apostle of Christianity to discover unknown lands, not for the queen of Castile, nor for the king of Arragon, but for Him to whom the heathen are for an inheritance, and the uttermost isles of the sea for a possession.

America was discovered. No sooner had Columbus landed at Lisbon than the news spread like wildfire over Europe. Through city, and hamlet, and baronial castle, a wonderful tale was told. It was reported that a band of daring adventurers had steered across that vast ocean heretofore the limit of the world, and that there lay beyond its mysterious waters, beneath the rays of a more ardent sun, and fanned by softer breezes, islands of beauty embosomed in transparent seas, and encircled by coral reefs, whose rocks were gold, and whose pebbles were diamonds, and whose soft and effeminate inhabitants worshipped the intellectual European as the child of heaven. It was everywhere said that a new era had begun in the world. Gray-headed sages, to whom the feudal barbarism of that age offered few events of interest, and who lived alone upon the memories of the past, thanked God that he had spared their lives to see the beginning of a brighter period in the history of mankind.

A brilliant destiny was opened to Spain. She had just driven out the Moors, and her adventurous hidalgos turned their eyes to the New World as their theatre of action. Splendid indeed was their career. History here becomes romance wilder than the day dreams of fancy. The light barks of the Castilian adventurers cruised beneath a sky of perpetual summer, among islands clothed with perpetual verdure. But not even the voluptuous climate of the West Indian Archipelago had the power to detain them in that earthly paradise. The fierce craving for gold and fame led them farther. Far to the west of the inland seas, embosomed among the Mexican Cordilleras, lay an imperial city whose equal was then scarcely to be found in Europe. But a few years had elapsed when a Spanish conqueror, from the ashes of that proud metropolis, gave laws to the fierce tribes of Aztecs who dwelt along the broad sierras, from the tangled forests of Honduras to the open plains of Sonora. Another Castilian warrior founded a viceroyalty among the volcanoes of Guatemala, on the mysterious ruins of a still mightier empire. Still another reckless adventurer, attracted by legends of gold, led his little band far to the southward, and among the Andes of Peru, erected for himself a viceroyalty greater in extent than the European dominions of his master. Another penetrated along the Pacific, far beyond the southern tropic, and never halted in his career of conquest till he had reached the inhospitable wilds of Aracauna. But the excursions of the Spaniards were not confined to the Southern Continent. Vasquez de Ayllon entered the harbors of Carolina. The more adventurous Gomez sailed along the barren coasts of New-England, and shuddering with the cold northern blasts, in disgust turned his prow toward a more genial clime. These bleak and sterile shores were reserved for a nobler destiny than to become the seat of a Spanish viceroyalty. Wandering mariners sailed among the coral reefs of the Bahamas and among the bays of Florida, green with the verdure of the live oak, in search of that hidden fountain, whose waters would restore the freshness of youth. The Spaniards became frantic in their lust of gold, and wild with unlooked for success. All of supernatural romance that they had learned from Moorish chronicles was surpassed in the New World. Illiterate, base-born soldiers seated themselves on the thrones of Indian kings, and swayed a viceregal sceptre over millions of Indian subjects. Castilian peasants strayed in the lofty halls of palaces as gorgeous as that of Aladdin, and among the flowery alleys of gardens as beautiful as those of Paribanon. A band of men, thirsting for gold and conquest, landed on the Florida coast. For three long years they wandered blindly, and at random, among the pine woods of Georgia, and through the thick cane brakes of Alabama, and over the open prairies of Mississippi, and through the hideous swamps of Arkansas and Louisiana, even to the confines of the great plains of the West. At length their brave and persevering leader sank under hardships and disappointments. They buried him beneath the waters of the Mississippi, and fled in disgust from a land, which, though the richest in the world, had been to them the land of death, and the tomb of all their hopes.

But North America was reserved by the hand of Providence for the possession of a race with nobler motives than the conquest of Indian empires, and the plunder of Indian treasures. It was destined to receive the best part of the European population; men with bold hearts and strong arms, whose resolute spirits swelled high against oppression, and who scorned to live anywhere except among their equals.

The wild and romantic adventures of the Spanish navigators set all Europe in a flame. England and France vied with each other for the possession of the northern portion of the continent. Soon after the discovery of the mainland, the fishermen of Normandy and Brittany pursued their business on the banks of Newfoundland. English seamen explored the coast from the capes of Florida to the icy recesses of Hudson's Bay. But during the whole of the sixteenth century, while the Spaniards were pursuing their brilliant career in the south, no permanent settlement was made north of Florida. England, indeed, attempted colonies in the fogs of Newfoundland, among the rocky islets of Maine, and on the barren shores of North Carolina ; but every attempt was a disastrous failure. In a more genial climate, among the mulberry groves of Florida and the magnolias of South Carolina, the Huguenots in vain attempted to establish colonies which might serve as an asylum for the gathering storm of persecution. The sixteenth century had expired, and no nation, except Spain and Portugal, had secured a lodgment in the new world. The whole coast, from Florida to Buenos Ayres, and from the Gulf of California to Patagonia, was partitioned off into viceroyalties. Spain refused to acknowledge the right of any other nation to any portion of the Western world. She claimed every foot of land from the frigid zone of the north to the frigid zone of the south, and the adventurous spirit of her cavaliers promised to make good her claims. The race dwelling from the Pyrenees to the ocean had gained the dominion of the world. The monarch of Spain was the first who could make the proud boast that the sun never went down in his realms. In Europe, a Spanish emperor ruled over the great Germanic confederacy, extending from the banks of the Meuse to those vast plains through which the Danube and the Vistula pour their waters into opposite seas. Italy was their vassal, and with the Turk and the Moor, in many a fierce battle, they disputed for the mastery of the Mediterranean. Their influence encircled Africa, and extended far into the East Indian seas. From their great oriental capitals, Goa and Manilla, their fame and their power went out far and wide into the islands, fragrant with spices, which lie in the Indian waters, and into the vast empires which surround their shores. The conquests of the Portuguese in these enchanting regions were marked by deeds of heroic valor and of merciless cruelty. Through the streets of Goa, the processions of the Catholic Church passed along in splendor equal to the festivals of Juggernaut and of Confucius. There too, in the same streets, the Holy Inquisition reared its gloomy front, destined to gnaw and corrode the very vitals of the Romaic race. Hindostan, China and Japan were more or less under the influence of Portugal. The rest of Europe looked on in astonishment and fear. France and England were the only bulwarks to the encroachments of the south. The sovereign of Spain married the Queen of England. A Spanish army marched to Paris and held his own capital against the king of France. The whole Spanish Peninsula was united under one head. The decrees which went forth from the palace of the Spanish monarch were listened to with respect by all the princes of Europe, and obeyed implicitly in the courts of Asiatic sultans, and of American caziques ; and when the Invincible Armada set sail from the port of Lisbon, the heart of the haughty Philip of Spain swelled within him, as he beheld himself, in his own imagination, wielding the sceptre of the civilized and of the savage world. Yet it was but a few years, and the world saw the utter wreck of the Spanish monarchy. Though we may rejoice in the just punishment of selfish ambition and of remorseless cruelty, yet it is ever with feelings of sadness that we trace the destruction of so colossal an empire, and the degradation of so noble a people.

The Newfoundland fisheries had opened the way to French enterprise in the Western world. The adventurous fishermen of the north of France discovered the Gulf of St. Lawrence, and looked with wonder on that vast river, across whose current the eye can scarcely discern the opposite bank. It was the natural conclusion that this mighty stream, by whose side the Mississippi is but a rivulet, must come from a source far in the interior, and that through it a communication might be opened with the Pacific. French adventurers soon swarmed among the isles of that dreary archipelago; the great river of Canada was ascended, and just two years after the building of Jamestown, Champlain built the first cottages on the bank beneath the rock of Quebec. He passed up the St. Lawrence. The climate became more mild, and the soil more inviting. The first of all Europeans, his light bark entered the lake which bears his name, and gazed with rapture on its beautiful shores, wooded down to the water's edge. With a horde of wild Algonquins, he ascended the Ottawa, and passed the winter in that wild and desolate region of lakes and frozen marshes, where, even to this day, no one but the half savage voyageur ever penetrates. Champlain was the hero of the colonization of Canada, and his bones still lie in the country of his adoption.

Two great nations of aborigines occupied the country from the banks of the Ohio to the mouth of the St. Lawrence. The country of the Iroquois strictly embraced northern and western New-York, but their war parties wandered to the mountains of Carolina, to the cane-brakes of Kentucky, to the prairies of Illinois, and to the streams flowing northward into Hudson's Bay. They were indisputably the noblest and most warlike race of savages in North America. The Delawares, on the shores of the Atlantic, crouched before their superior energy, and acknowledged themselves to be women in their sight. Inflamed by success, proud of their fame, their arms spread far and wide. The Tuscaroras, on the banks of the Catawba, trembled at their renown. The Eries, who dwelt south of that lake, were entirely exterminated. Many a scalp, brought from the banks of the Yadkin and the Wabash, decorated the lodge of the Mohawk brave. Many a poor Shawnee, from the banks of the Cumberland, was roasted on the banks of the Oswego. Around the land of the Iroquois, for hundreds of miles, was a wilderness, into which no strange tribe dared intrude. It was like the perpetual stillness which reigns around the lair of the lion in the Hindoo jungle. North of the five nations dwelt the great family of Algonquin tribes, whose bark hovels were built along the bays of Maine and the shores of Lake Superior. Scattered over a vast extent of country, they presented an easy prey to the concentrated power of the Iroquois; and they welcomed the French with joy, with the hope that from them they would obtain protection against their ferocious foe. Such was the state of Indian politics when Canada began to be colonized.

From the first the Iroquois were the deadly enemies of the French. They had a market for their furs by way of the Hudson, and they prided themselves on being enemies to the whole human race, except those with whom they might exchange their furs for rifles and powder. Canada increased but slowly in strength and population. Although it lay between the same parallels of latitude as the vineyards and the olive-groves of Languedoc, yet its climate more resembled Lapland than France. The delicate Frenchman, accustomed to sunny skies, and breezes from the African deserts, shuddered at the cold blasts that came sweeping over snowy plains and frozen lakes, direct from the pole. It is seldom that men emigrate to a climate colder than the land of their nativity. Few emigrated to Canada for the purpose of cultivating the soil. It was essentially a trading colony; and this characteristic, while it prevented its growth in strength and permanence, promoted the cause of discovery and of daring enterprise. But it was not trappers or hunters who were to be the pioneers of the great West. It was not the thirst of sordid gain that influenced the first white man who looked down into the clear waters of Lake Superior, or who gazed with awe upon the mighty Missouri, rolling down its turbid flood from the unknown wilds above. The spirit of religious enthusiasm explored the basin of the great lakes and the Valley of the Mississippi.

To the Society of Jesus was given the task of civilizing and christianizing the red men of the Northwest. Their missionaries had already penetrated to the Steppes of Central Asia, to the isles of Japan, and to those vast plains through which the Paraguay and the Amazon flow to the Atlantic. By these missionaries, privations, hardships and tortures were counted as nothing in comparison with the advancement of their order. In all history, ancient or modern, there is no society that can be compared with this in the devotedness of its members, except the Assassins of Mount Lebanon. A little band of Jesuit priests landed at Quebec. At this time, there only existed above Quebec the small trading posts of Three Rivers, Montreal, and Sorel, and these were in constant dread, by night and by day, of the fierce Iroquois. The natural highway to the upper lakes was cut off by these savages, whose canoes lay in ambush among the thousand isles for the stray trappers who might visit the waters of Ontario. The Jesuit missionaries ascended the Ottawa, and, crossing the chain of small lakes, they preached the Word of God in the hovels of the Algonquins on the bays of Huron. They sailed among the islands of the Manitouline Archipelago; and at Sault de St. Marie, at the outlet of Superior, they proclaimed the gospel to the Chippewas, who wandered in that desolate region, horrible with granite rocks and swamps, which lies to the northward. They entered that vast inland sea, which the natives worship as a divinity, and to which, like the Atlantic or the Pacific, they had never given a name; and they penetrated to its farthest extremity, where the St. Louis, white with the foam of its cataracts, enters the lake amid groves of pine. There rumors reached them of the Dahcota, who dwelt far to the westward, by the banks of a great river, whose warriors hunted the buffalo on fleet horses, and whose squaws gathered the wild rice from their bark canoes. Two missionaries resolved to seek this mighty river, and to carry the cross to the tribes on its banks. Joliet and Marquette, with a little band of French and Algonquins, paddled their canoes southward on the waters of Lake Michigan and of Green Bay, ascended the Fox River, carried their light barks across the narrow portage, and launched them on the waters of the Wisconsin. They soon entered the Father of Waters, and glided smoothly down, past wooded islands and between wide-spreading prairies fragrant with the wild flowers of June. They heard the distant lowing of buffalo, but no vestige of a human being was seen. The fear of the Iroquois had spread even to those remote prairies, and the timid Illinois trembled at the sight of every stranger. At length they found a village on the banks of the Des Moines. The Jesuits pursued their way down the river. They passed by the mighty Missouri, rolling its muddy waters into the clear Mississippi. They paddled by the mouth of the Ohio. Vegetation began to assume a more luxuriant form. The river islands were covered with the cotton-wood, the cypress, and the sycamore. The banks were covered by thick cane-brakes. The alligator soon made his appearance to the sight of the wondering Frenchmen. The burning sun of July scorched them with its almost tropical heat. At length they reached a point near the mouth of the Arkansas, and retraced their voyage. A wonderful tale soon reached the Court of Marli of a vast river far in the western wilds, beside which the rivers of the old world were merely brooks, flowing thousands of miles through boundless prairies and magnificent forests, and lands scarcely peopled by the red man, lying a fair gift for the first comer. The lilies of France were soon planted up and down the Mississippi; her flag floated on every part of its waters. Peace was made with the Iroquois. French brigantines floated on the upper lakes. At Detroit and Kaskaskia, and Arkansas and Mobile, garrisons or missions were established. New-Orleans was founded among swamps of the Lower Mississippi, and the whole valley of the West was in the hands of the French. In the north, they extended their sway over the countries around the entrance of the Gulf of St. Lawrence; and their hardy trappers erected forts on the shores of Hudson's Bay, and penetrated to the head waters of the Missouri and the Saskatchawan. All that vast basin of rivers and lakes, reaching from the shores of the Gulf of Mexico to the land of the dwarfish Esquimaux, was traversed by French missionaries, and *voyageurs*, and trappers, while the pine and the chestnut yet grew in the streets of Philadelphia. It seemed as though the Anglo-Saxon race was to be confined to the Atlantic slope, while the fairest part of North America was to become the portion of the Grand Monarque.

From the brilliant career of the French in the West, we turn to the sober and steady progress of the rival race on the shores of the Atlantic. Three great elements enter into the character of the American people, derived from the colonization of three distinct classes of society. These are, the Puritan, the Quaker, and the Cavalier. The elements which were one day to work out that wonderful and unexampled emigration were yet hidden in darkness. The Puritan was not yet ready to emigrate. Men, though stricken by poverty and galled by oppression, were not yet prepared to leave their homes to seek a new residence in unknown lands. When they visited the New World, it was to fish into its waters, to seek gold in its hills, or to trade with its nations. They went to seek fortunes, and not homes. Their thoughts ever turned back towards the rising sun, far over the ocean, to the firesides of their beloved land. They would not have exchanged its cloudy and inclement skies for the brightest sunshine of the Western World. They seem to have had no other intention than to return with the means of comfort and happiness for themselves and their families. And yet they were harassed at home by seals on their lips and fetters on their consciences. But men in those times did not often leave the homes of their boyhood for the mere purpose of bettering their condition in a pecuniary point of view. It must be something more than poverty or desire of riches that would drive the Englishman from his native shores forever. The world had not then witnessed the exodus of almost a whole race from their native soil, looking back with no tear of regret upon the land which bore them, going to swell the population of a foreign country. Throughout almost the whole of the sixteenth century, the English Puritans remained cooped up in their island-prison, suffering all manner of evil, constantly hoping for better times. It took a hundred years to wear out their patience. During the reign of the arbitrary Henry VIII., the Puritan party had scarcely agglomerated into a distinct society. That, too, was the age of religious enthusiasm, when martyrdom was preferred to expatriation, and when men deemed it their duty even to go in the way of danger for conscience' sake. Next came the reign of good King Edward; and the Puritans even hoped that England would become thoroughly reformed — a hope blasted by his premature death. Then came the "bloody Mary;" and the oppressions of that reign, though violent, were but short-lived, and before the Puritans had time to take counsel and to confer with each other, the tyrant had passed away. Had the persecutions of Queen Mary continued a few years longer, there is little doubt but that the settlement of the United States would have dated back half a century earlier. During the long reign of Queen Elizabeth, the dissenters suffered severely. But though their sovereign was harsh, they loved her with a devotion with which few monarchs have been loved. It was not until the arbitrary and high-spirited Elizabeth was succeeded by a sovereign as arbitrary as herself, but who was too mean-spirited to gain the love or even the respect of his subjects, that a large part of the people of England began to think seriously of emigrating. They had waited with patience the death of the queen, hoping that with her successor would come in freedom of conscience, and even a more extensive reform. He had been educated in the very capital of Presbyterianism, and in the utmost horror of Episcopal vestments, and they hoped with reason that he would carry out the principles which had been instilled into him during his boyhood. They were wofully mistaken. No sooner had James Stuart mounted the throne of Elizabeth, than he adopted her persecuting policy. The Puritans hardly obtained a breathing-time. They were again driven from all the churches. They were not allowed to meet together in the open air to praise their Maker after the dictates of their own consciences. Their private conventicles were again invaded by the officers of the law. They were again insulted and abused by insolent magistrates, and thrust into noisome dungeons. All these things they had suffered during the reign of Elizabeth, but, at least, she had suffered no one to insult and oppress them but herself. She broke forever the colossal power of the Spanish monarchy. She avenged the massacre of St. Bartholomew. The Spanish colonists in the New World trembled at the names of Drake, and Hawkins, and Raleigh. The Puritans submitted cheerfully to the rod of that imperial woman, who kept Europe in awe. They looked up to her with pride and confidence as the bulwark of Protestantism. But when her weak and drivelling successor attempted to use the same rod, their patience was exhausted. Despairing of that country for which they had labored and prayed nearly a hundred years, disgusted with their sovereign, they took their wives and their little ones, and turned their backs upon England forever. The New World lay before them in primeval beauty. Its forests were as yet unbroken, and its soil as yet almost untrodden. There, beneath the shade of its ancient oaks, they could worship their God, with none to molest or to make them afraid. There they determined to build up a pure and holy commonwealth, such as the world had not witnessed since Joshua had parcelled out the Promised Land among the tribes of Israel.

The first Anglo-Saxon colony landed on the coast of Virginia. The settlers of that colony were neither Puritans nor Cavaliers, neither were they men who had come out with the intention of making themselves homes in the wilderness. They were merely adventurers and traders, who purchased skins from the natives, and sought for gold among the hills of James' River. They came merely to make fortunes, and then to return to England. They did not cast in their lot in the colony for weal or for wo. They took no interest in her prosperity, for she was to them no abiding city. It is not of such men that great commonwealths are built up. No community can flourish until its citizens become settled for life, and regard it as their home, and the heritage of their children. It was precisely for this reason that the colonies of Raleigh had failed, and that Virginia languished so long in a feeble and half-dead existence. There was no permanence and stability in her population. Half-starved by their own improvidence and indolence, they continually looked across the Atlantic for succor. They had gone out to dig gold and to amass wealth, and they scorned the menial occupation of hoeing corn. Such men were unfit to be colonists; and had it not been for the continual assistance of a powerful company at home, they would have perished to a man, or have been forced to leave the country. Such were the settlers who came out to Virginia during the first years of her existence. But the character of the emigration gradually changed. The search after gold proved fruitless, and the trade with the Indians became unprofitable. Men were obliged, from necessity, to turn their attention to agriculture. Women were brought into the colony, and with them came domestic ties and the attractions of the fireside. Many of the poor and decayed gentry left their homes, where their pride was constantly exposed to humiliation, and sought an abode where the eye of contempt and of pity would not follow them. When the Church and the throne of England fell beneath the blows of the sturdy masses, many a ruined cavalier fled forever from a land polluted by its monarch's blood. From the Civil War until the Restoration, this tide continued to pour in. These made some of the most valuable of the citizens of Virginia, and it is mainly to them that she owes her proud title of "The Old Dominion." They brought with them that bold and chivalrous spirit, and that dignity and courtesy of manner, which is, even to this day, a marked characteristic of the Virginia people. Agriculture soon became the sole occupation of the colonists, and tobacco the great staple. But the high-born cavalier and the younger son of the rural squire disdained to soil with menial labor the hands, which had grasped with the grasp of an equal the hands of nobles and princes. Therefore, it was needful that negro slavery should be introduced into Virginia.

But we turn now to a colony after another pattern, founded, not by reckless adventurers nor by spendthrift gentlemen, but by God-fearing, laborious men, who sought not gold nor sudden riches in the New World, but a home where prelatic tyranny could not reach them. They brought with them their wives and children, and social and domestic ties from the first attached to their humble cabins and their barren soil the settlers of Plymouth and Boston. They looked back upon their native country with mingled feelings of aversion and love. Her prelates and her king they utterly abhorred, for they had persecuted the Church of God. But still they remembered their dear Old England with pride and love, for she was still the bulwark of Protestantism, and the land of their childhood and youth. No sooner had they landed than they regarded the New World as their home. The greater part could not have returned to England without danger of the Star Chamber and of the Court of High Commission. They preferred hardship and the risk of Indian massacre, to the stocks, or the dungeon, or the pillory. It was almost impossible to force riches out of the barren soil around Massachusetts Bay, and the thirst for sudden wealth, which was the bane of Virginia and of the Spanish colonies, was unknown to them. Every man could earn a competence and support a family by industry and economy, and contentment settled itself over all their dwellings. From the sandy beach of Plymouth, the New-England settlers spread themselves far and wide over that fair region of hills and dales, traversed by winding rivers and dotted over by innumerable lakes, which lie between the Hudson and the Penobscot. Their forests were vast and dense; grass grew naturally by the sides of their clear running brooks. But they lacked the gorgeous vegetation of a southern climate. The gigantic poplar, the brilliant magnolia, could find no root in their firm and clayey soil. The dense cane-brake and the impenetrable swamp, swarming with reptiles, would have seemed out of place on the banks of a mountain torrent, whose channel was filled with blocks of granite, and whose pure, cold waters never rippled over a sand-bar. The nature of the country was exactly accommodated to the nature of the people. They were a sober and God-fearing race; industrious and persevering; content with moderate gains; rugged rather than courteous, yet kind-hearted; keenly alive to interest; not easily excited, yet possessing deep and lasting feelings; not genial in temperament, yet good husbands, good neighbors, and good citizens. New-England was essentially a religious colony, and it had all the virtues and the faults of one. Every community in which the religious element very strongly predominates, has some vices peculiar to itself. Of these, hypocrisy and intolerance are the most prominent and the most hateful. We by no means intend to throw the smallest reproach on the name of Christianity. It would be as absurd to charge the system with the faults of its professed followers, as to ascribe to its founder all the doctrines which have been promulgated under his name. Hypocrisy and intolerance have existed in the world long before the introduction of Christianity; though, perhaps, wherever that system has been fully established, it has had the tendency to give to these vices a peculiar prominence, by keeping down all others. The Catholic Church of Continental Europe, the Calvinistic Church of Geneva, the Calvinistic Church of Holland, the Episcopal Church of England, the Presbyterian Church of Scotland, the Puritan Church of New-England,—all have the stain of intolerance on their skirts. As the last partook least of the nature of an established church, it took the disease in a milder form. As soon as an open profession of religion becomes necessary to the attainment of office, or even of a respectable rank in society, that moment a premium is offered for hypocrisy. Men will conform outwardly, while at heart they are indifferent or averse. Such a state of society, to a great extent, existed in New-England. Outwardly, moral and correct, the tendency among the evil-disposed was toward deceit. Licentiousness was rare. From climate, and pursuits, and early training, her people were moderate in their opinions, and law-abiding in their conduct. Ebullitions of passion were unfrequent. Men settled their personal disputes not by the strong arm, nor the deadly weapon, but by the forms of law. No reckless outlaw there outraged public opinion, and made himself a terror to the peaceful and the timid. From the first, the laws which more immediately control the intercourse of man with man, were extended and enforced in all their severity over every squatter who built his cabin far up in the valley of Connecticut and among the rocky promontories of Maine.

It is now, we believe, the fashion in high quarters to extol the Puritan character to the skies. We beg leave to dissent from this opinion. We acknowledge their noble qualities, and the important services they have rendered to mankind. We admire the daring enterprise of their descendants, whose character is so happily compounded of the stern virtues of their fathers, tinctured by the liberality of a more enlightened age. But we think history has been unduly partial to them, and has paid that homage to unwearied energy, and transcendant intellect, which it owes only to the nobler feelings of the heart. The Puritan character was deeply tinged with bigotry and intolerance; and we are inclined to think that very much of the opprobrium rests on the shoulders of their ministers. From the first, the ministers of Boston were the most deadly enemies to toleration that were in the colony. They were ever eager to impress the duty of intolerance upon their flocks; and they themselves set the example in persecution. Scarcely had the Puritans built their cottages around the shores of Massachusetts Bay, when the godly ministers of that godly flock drove out the best and purest of their number from the hearthstones of his faithful parishioners, to seek a refuge in the wigwam of the savage Massasoit. But the stern bigotry of the Puritan ministers went still farther. Some harmless fanatics came into the colony, and, carried away by religious enthusiasm, made some petty disturbances. But the ministers would not stand by and see that holy land which they had taken so much pains to keep pure, defiled by heathenish practices. The poor Quakers were banished from the colony, and on their return were hanged. Foremost in procuring their banishment and their execution were the ministers. The Puritans had left their Egyptian bondage, and had come to the wilds of America that they might build up a commonwealth pure and holy, where no persecutor might disturb them, and no alien intrude upon them—where all might hold the same faith, and adore their Creator in the same ordinances—where all might live together in peace and harmony, until Christ should come and reign among them on earth. Such was the argument offered for the banishment of Williams, and the execution of Robinson. They would have a community purer than that which Joshua had founded on the ashes of Ai and Jericho. They would suffer no idolatrous Canaanite to dwell among them. No heathenish sacrifices should be offered on the altars of Adonis or Ashteroth, in sight of their holy tabernacle. And, in truth, if we judge them by the exclusive code of the Jewish nation, to which they pretended to conform, we must admire their consistency and their stubborn perseverance. But we have not so learned the Christian religion. Neither had they so learned it. They themselves had felt the bitterness of persecution: yet even in England, they were no advocates for toleration. While their ears were cropped by the hangman; while in the pillory they were exposed to the insults of the brutal mob, they were as intolerant as Laud himself. None called for a rigid enforcement of the penal laws against the Catholics more loudly than the Puritans. When James II. offered them toleration in common with the Catholics, they haughtily thrust it back. Proudly as they bore themselves in adversity, resolute and stubborn as they were in the hour of danger, in meekness and charity they seemed to have but little of the spirit of Him whom they called their Master. One of the rights for the exercise of which they emigrated was the right to persecute. Among other grievances, they could not banish Antinomians and hang Quakers in England, and therefore they emigrated. But religious toleration, it is said, was a doctrine then entirely unknown. Granting that, which yet need not be granted while history records the sentiments of Hampden, and Vane, and Williams, and Fox, the Puritans would at least be no better than their persecuting tyrants. And it is not to the persecuting spirit of the New-England Puritans that we are at present objecting; it is to that constantly-repeated assertion, that the Puritans of New-England were in every respect so far in advance of their age. Our country owes them much, but it does not owe them the doctrine of religious toleration. It is just to mention here the fairness of Mr. Bancroft. Although he is a son of Massachusetts, and we presume descended from the old Puritan stock, he by no means seeks to excuse the conduct of the early fathers of his native state.

But a strange series of events followed, which were destined to bring a still deeper stain on the fame of the Puritan ministers than the banishment of Anne Hutchinson or the sentence of Mary Dyer. A wicked girl in the city of Boston, out of malice and revenge, accused an old Irish crone of having bewitched her. Several of her brothers and sisters, either from sympathetic influence or persuasion, also showed signs of the same malady. The case was taken in hand by the ministers of Boston, and especially by Cotton Mather, their leader, a man of impetuous temper and headstrong obstinacy, skilled in controversy, proud of his talents, and of the powerful order to which he belonged. After a trial, in which wealth, and intellect, and power, were arrayed against poverty and ignorance, the poor old wretch was condemned and hanged. Some strange cases of convulsions occurred at the village of Danvers, in the family of Parris the minister. Parris had just been engaged in a violent quarrel with some of his flock, and he seized upon this glorious opportunity for revenge. From members of his own family, by instructing and prompting, he obtained the names of those who had bewitched them, and these answers were given as evidence in the court of justice. Against his enemies he employed all the efforts of his malicious and revengeful spirit. But Parris did not do his work of infamy alone. It was too inviting a subject for the ministers of Boston not to participate in, and with Cotton Mather at their head, they eagerly joined in the grand witch hunt. Witch-finding was made a science. Honest bigotry and malicious craft kept up and increased the excitement. Every one who was bold enough to express his disbelief in witchcraft, and his belief in the rascality of the whole business, was a doomed man. Evidence tending to convict their friends was suppressed, and evidence tending to convict their enemies was manufactured. But the holy zeal of the ministers was not satisfied with the judicial murder of those of their flocks who had incurred their displeasure. It was next directed against those of their own order, who had the intelligence and the honest courage to oppose this disgraceful affair. George Burroughs, a minister, had been the rival of Parris for the affections of the people of Danvers. Evidence sufficient to bring him to trial was soon procured. The life of this pure and high-minded man had been spotless, and the evidence of a few perjured wretches was all that could be alleged against him. This case was one of peculiar malignity, and therefore one in which Cotton Mather took especial delight. We must transcribe the account of this trial as a specimen of the rest. The perjured witnesses, although prepared and drilled by the malignant Parris, stood rebuked and dumb before the innocent prisoner. "Who hinders these witnesses," said the judge, "from giving their testimonies?" "I suppose the devil," answered Burroughs. "How comes the devil," retorted the chief-judge, "so loth to have any testimony borne against you?" and the question was effective. Cotton Mather calls the evidence enough. The jury gave a verdict of guilty! After such a fashion the trials were conducted.

But the spirit of the people began to be roused. They saw that the ministers were aiming at a hierarchy, and were endeavoring by fear to reduce them under a tyranny more hateful than that which they had crossed the ocean to avoid. The juries acquitted the accused. The vengeance of the friends of his murdered victims forced Parris to fly from Danvers. Cotton Mather lived a long life, hated by many and loved by none; basely and cowardly attempting to disavow his hand in the bloody tragedy; haunted by the gloomy terrors of an evil conscience, and by the innocent blood which he had been instrumental in shedding. We regard his character as one of the blackest recorded in the annals of New-England. We do not accuse him of being actuated by the malice of Parris; but we do accuse him of exerting himself to convict persons, about whose guilt or innocence he knew nothing, for the sake of preserving the pride of consistency, and for the sake of gaining power and notoriety. He had declared himself at first a believer in witchcraft, and with unbending resolution he carried out that belief to its extreme consequences. But he was not satisfied with conviction, and condemnation, and execution. At the hanging of Burroughs, his brother minister, he harangued the crowd with vehemence, and attempted to stifle the pity and sympathy which arose in the bosoms of his flock, as they beheld the ignominious death of him who had so often fed them with the bread of life. The responsibility of these judicial murders rests not on the court alone. A full moiety rests on the heads of Cotton Mather and his associates. The judiciary was entirely under their control, and some of the judges had been appointed at their recommendation. Yet we do not think that Mather was guilty of these enormities for the sake of blood; far from it. But we do believe that pride and ambition were his guiding spirits. His observant eye saw that the age of priestly domination over Massachusetts had almost passed away, and that the power of the ministers was greatly on the wane. Men were lapsing into more liberal sentiments, and the people no longer looked to their pastors for political opinions. But Cotton Mather had no intention of being confined to those narrow limits which the Great Founder of Christianity had laid down for the guidance of those who were to feed his flock. His business was not to comfort the distressed; and his place was not at the bedside of the dying. He grasped at political power, and eagerly sought fame in the mazes of theological controversy. He sought to establish a theocratic government over the colony, of which the ministers should be the Urim and Thummim. The day had gone by for the effection of this by the proper influence of the pulpit, and he eagerly seized the opportunity of the Salem witchcraft as an instrument. He would frighten the superstitious by the terrors of the invisible world, and the skeptical by the terrors of the gallows. These we believe to have been his motives. But the people of Massachusetts had more sturdy good sense than their ministers reckoned upon, and the political power of the Puritan clergy fell, never again to rise.

Southward of the inheritance of the Puritans lay the inheritance of the Quakers, New-Jersey, Pennsylvania, and Delaware. Between the two, as a kind of barrier, was New-York. First colonized by the Dutch, it long retained the impress of its original settlers. Down to the boyhood of Irving, the lands on the Hudson were tenanted by the sober, industrious, and frugal progeny of the subjects of Stuyvesant. The city of New-York, too, at that period, retained many of the characteristics of her original founders. Indeed, the daughter has, in very many respects, inherited the disposition of the mother. That practical turn of mind, ever varying on materialism; that incessant struggle after wealth for its own sake; that spirit of heroic self-reliance, which caused the Hollanders to lay their country under water, and to resolve to emigrate to another hemisphere; that spirit of daring enterprise which prompted them to seek gain under the burning sons of the Equator; that commercial tact which enabled them to carry on for two centuries a traffic with an empire, which sternly denies a refuge even for a shipwrecked mariner of any other civilized nation on its inhospitable shores; that commercial skill which enabled them almost to monopolize the East India trade of Europe: all these things has the daughter inherited from the mother. But the Dutch were not to give character to the State of New-York. English emigrants poured over, and settled the woods of Manhattan island. New-England became too small for the prolific Puritans. Their pioneers turned from the dark evergreen forests towards the sources of their rivers, and spread themselves along the rich valley of the Mohawk, the home of the Spartans of the American aborigines. Northern and Western New-York became essentially Puritan, and Puritan influence prevailed extensively over her commercial metropolis.

Passing southward to the waters of the Delaware, we enter the habitations of a people with new social institutions and a new religion. Here was the seat of the grand Quaker experiment. The emigration of the Puritans had almost ceased at the overthrow of King Charles I., and the emigration of the Cavaliers had ceased at the Restoration. Between the two was left a vast extent of vacant territory, as if reserved by the hand of Providence for that wonderful sect, which was there to erect the keystone of a glorious arch, and to unite in an indissoluble bond the jarring interests of the Puritan and the Cavalier. The origin of the people called Quakers was the latest result of the Reformation. The effect of the great movement in which Luther participated, was to sever the Germanic tribes from their allegiance to the Bishop of Rome. They still retained a doctrine, differing little from that of the real presence, and, in many places, the hierarchy still existed. Next in the career of Reformation came the Church of England. It rejected the real presence, but still held fast to that splendid hierarchy, a holy and separate order of priesthood, whose predecessors came from under the hands of the Galilean fishermen. Next came the Presbyterian Church of Scotland. It rejected the hierarchy, but still retained a strong and effective organization, and a separate priesthood. Next came the Independents of England. They rejected the vigorous organization of the Presbyterians, and established a perfect democracy as their church government. Each separate assembly of believers was responsible to God alone. They still retained the priesthood though shorn of its strength. That reverence and obedience, which in other sects was divided with pope, and bishop, and kirk, among them was yielded to the Bible alone. Deprived of every other material object, their reverence for it amounted almost to idolatry. They took as rules for action and as obligatory commands, passages which certainly were meant neither for rules nor for commands. Against the royalists they turned all those dreadful curses which an offended God had pronounced against Canaan and Babylon. Upon their own king they inflicted the doom to which God had devoted the sovereigns of Heshbon and Amalek. But while they thus reverenced the letter of the Scriptures, their conduct was but too often at variance with its spirit. Their pride, their intolerant spirit, their gloomy temper, they never derived from the example or from the precepts of Christ. Next in the track of Reformation after the Puritans came the Quakers. These proceeded in the career of reform to the very verge of Christianity. They threw off all that respect for tradition which still lingered obscurely around the belief of other Christian sects, and a separate order of priesthood was unknown among them. But they went farther than this. They divested themselves of all idolatrous respect for the Scriptures, and they turned from the Word of God to the Author of that Word himself. Farther than this they could not go, and there they stood like a lonely outpost of Christianity, overlooking the tumultuous seas of mysticism. Yet to those Scriptures, which they professed to consider as but of secondary importance, they paid a more implicit obedience than the sects who reverenced the letter of the Word almost equally with its Author. All candid men, who have ever known them, acknowledge that in their lives and in their sentiments they have walked in the footsteps of their Master more closely than any other sect with whose history we are acquainted. The world owes them an eternal obligation for the principle of toleration. Catholics, Episcopalians, Presbyterians, and Puritans, however much they might differ otherwise, yet all agreed in persecuting whenever they were able. It was for an obscure and despised sect, made up mainly from the poorer orders, to carry into practical operation a doctrine far in advance of the philosophers of their age,—a doctrine of which the world was not yet worthy.

The system of the Quakers could not be fully tried in the crowded cities and amid the tumultuous passions of the Old World. Far across the Atlantic, under a brighter sun and a serener sky, on the banks of the majestic Delaware, in the secluded vales of the Brandywine, where no voice of party warfare and no oppression of mitred priest could reach, there was to be tried the great experiment whether the stricter principles of the Bible, as exemplified in Quaker usage, could not regulate the affairs of civil government as well as of individual intercourse. And gloriously was their expectation fulfilled. A great commonwealth, containing more than two millions of people, stretching from the Delaware to the inland sea of Erie, over mountain, valley, and river,—over great cities and dreary wilds,—the keystone of the arch of our Union,—this is the fruit of the great Quaker experiment.

Of the founder and lawgiver of this State we would say a word. His character has been violently traduced by the prince of English historians, and by the power of that magic pen he has been, as we believe, unjustly held up to public indignation. William Penn was a philanthropist in the broadest sense. He was not a mere English patriot as were many of those heroes whose praises Macaulay loves to sound. He was not bound, as were many of his Puritan contemporaries, by narrow views of sectarian bigotry. The strength and energy of his creed consisted not in hatred of mitres and surplices, nor, indeed, in hatred of anything, but in universal love. The character of Penn would not strike forcibly the imagination of most men. To one who admires solely energy of mind, splendid civil or military talents, dauntless courage, intensity of will, he would be no idol. His great object was not the applause of men, but the approbation of his God. We do not mean to say that he had no faults, but we do believe that his motives were far purer than those of all the statesmen around him. And we do not hesitate to compare him with the best. Shall we compare him with Cromwell, that idol of the English democracy? They both became sovereigns of commonwealths. The one, selfish and grasping, centred all power in himself, and built high the throne of his Protectorate on the ruins of ancient liberties. The other, mild and generous, gave up all power to the people, and dwelt among them rather as a father than as a master. In vain may it be said that Cromwell was compelled by his enemies to become a despot. No one can doubt, that, under the same circumstances, Penn would have resigned all power, and retired into the body of citizens. Cromwell desired to make his country great. Nay, he would not hesitate to achieve greatness for her upon the ruins of other nations, and in defiance of the laws of justice. Witness the wars with Holland and Spain. But with Penn, justice ranked above patriotism, and he would not see his beloved commonwealth grow rich and mighty by the slaughter and robbery of the peaceful Delawares. Cromwell may have been a patriot; Penn was certainly a philanthropist. Which of these two characters merit the most esteem we leave the reader to judge. Patriotism is not so rare a virtue that it must needs be exalted to the skies, but real, practical, skilful philanthropy comes to us centuries apart. Perhaps Cromwell did what most men of energy and great force of will would have done. But it is not with men of ordinary motives that we are just now comparing him. The Quaker sovereign, possessed of absolute authority over his dominions, gave up all without compulsion. He looked upon his colonists as his children, yet not to be restrained by stripes, or brought under strict command, but as children who had attained the years of majority, and who owed him nought save love and gratitude. And when he had established an almost perfect democracy where the exiles and the oppressed of every nation might dwell together in harmony, he would not remain to exercise even the little authority he yet possessed, but, bidding them an affectionate farewell, he left them to see their faces no more. But his spirit and his teachings remained behind him. Throughout the whole extent of that noble commonwealth, no monument exists specially to perpetuate his memory. And there is need of none as long as the Delaware reflects from its quiet floods the spires of Philadelphia, "his virgin daughter,"—as long as the Susquehannah, rushing from its mountain sources, rolls its broad waters among fertile fields and thriving villages,—as long as the broad Alleghany rests on its eternal foundations.

Yet another element entered into the formation of the American colonial character. The cavalier appropriated to himself the vast regions lying south of the Chesapeake Bay. In Maryland and North Carolina, Quaker influence prevailed to a considerable extent. In the rest of the Southern States, the cavalier greatly predominated. In Virginia he gave almost the entire character to the State. A large proportion of the settlers of Virginia were English gentlemen. A much greater quantity of noble blood flows in the veins of her citizens than in those of any other colony. Younger sons, victims to the law of primogeniture, came over to her woods that they might not behold the wealth which they could not inherit. Many a cavalier of broken fortunes sought a country where his old associates could not look down upon him with contempt. Many a rebel partisan of the House of Stuart buried, in exile, his fears, his hopes, and his ambition, on the banks of the James, or of the Rappahannock, and there earned his livelihood by teaching school; while the simple planter watched curiously the mysterious movements, and looked with wonder on the stately bearing of the exiled warrior or statesman. And at the period of the Revolution, Virginia was the guiding star of the Union, and the voice of her counsellors was listened to with respect by the whole nation. Her inhabitants lived apart on rivers and creeks in solitary independence. Around the mansion of the planter, as far as his eye could reach, he was proprietor and lord both of lands and persons. His commands were implicitly obeyed. The power of life and death over his slaves was in effect in his hands. Thus there was formed in Virginia a numerous and powerful aristocracy, proud and impetuous in character, self-willed, yet courteous in their intercourse with each other, tenacious of their rights, accustomed to act upon the impulse of the moment, never thinking of future consequences, turning back from no danger, to be restrained by the terrors of no law. Their faults and vices were not those of a trading community. Though they often acted wrongly, they never acted meanly. Among them deception and overreaching had no place. They never hesitated to take life for an insult, but murder for gain was almost unknown. Irascible and haughty, yet their doors were open free to all, and the humblest stranger never turned away from their thresholds unrefreshed. They carried the polish of the English aristocracy among the peaks of the Blue Ridge and into the pine forests of Carolina, united with genuine English hospitality, which, in its native land, has withdrawn its favors from the whole people to a select few. The generous, unthinking welcome, which had been found at the table of the Saxon thane, was found at the board of the Southern planter, refined by Norman suavity. Except the noblesse of France and the rural gentry of England, there could have been found perhaps nowhere in the world a race equal to the old Virginian aristocracy, who, to equal polish, added as high a sense of honor, and far purer morals.

We had intended to add something on the great question of slavery, but our limits will not permit. Suffice it to say that, in our opinion, Mr. Bancroft has done the South in this matter as much justice as a Northern man is capable of doing, viewing the question from his stand-point. We may at some future time resume the subject.

Art. V.—LEADING TRUTHS IN POLITICAL ECONOMY.

IN political economy, as in all other practical branches, there is nothing that can be true in theory, but false in practice. Political economy has to deal with practice alone, and the results of reasoning on facts, when systematically arranged, are called theory. A theory may be consistent within itself, though starting from erroneous premises and misconceived facts; but this does not make the theory true. Speculation is not theory.

In medicine nothing can be healing in theory, but killing in practice. Every one theorizes who reflects on facts, in order to find laws; sacrificing facts to a theory, is enchaining idolatry.

Political economy is of the last importance; for its subjects are closely connected with civilization, freedom, and the most sacred interests of man; but political economy is not, on that account, a substitute for ethics, religion, or any essential branch of knowledge.

The Bible does not dispense with political economy. The Bible gives principles; political economy seeks the means and methods of carrying them out—for instance, the principle of charity, and pauper systems.

Civilization stands in need of greatly accumulated wealth; progressive civilization, of progressive wealth.

Values exist long before money.

Great wealth exists without any money—for instance, China.

Money is always a minimum part of national wealth.

National wealth is nothing but a term for the aggregate wealth of the individuals.

Freedom, which is security of untrammelled action, is one of the first requisites of general and healthy wealth. With our race commerce has almost always prospered or fallen with religious liberty, (because in Europe religious liberty has, generally, been the highest test of liberty.)

Accumulation of wealth, so far from being anything sordid, is indispensable to civilization. Economy is necessary to accumulate wealth; saving is honorable. There is no economy possible, without order. Keeping books is indispensable to order. Pay as you go along.

Money always retains the essential characteristic of a commodity. Money *is* a commodity. Gold and silver have naturally become the chief substances of coin, but no mysterious law of nature has made them so.

Always judge of questions of production and consumption—first, without any reference to money, (as if it did not exist,) and without any reference to civil divisions—to colored lines on the map.

Mutual dependence is a primary law in political economy, as in all else.

All production is for consumption—productive or unproductive. The only thing essentially needing protection, is consumption. Consumption is protected when the law removes all obstacles in the way of obtaining the highest amount for the smallest means; all else is wilful waste.

Labor stands truly in need of protection—that is, no arbitrary restraint must be put on labor, so that more labor is necessary to obtain an object, than would be requisite without the retraint. *All* labor must be protected; that is, *none* must be restrained or wasted. All so-called protection of labor is partial favor to some species of labor, to the detriment of general labor.

Communism is the doctrine of absolutism, whether monarchical or democratic. Protective tariffs are veiled communism.

Commerce, internal and foreign, is still, and must for ever remain, barter, except the smallest retail.

Products alone can create a demand for products. Not hunger, not cold, create a demand for bread or raiment, but products which may be given in exchange for them. If money be given for them, this money must first be obtained for products.

Government cannot make money; it can only stamp it, to save trouble. The die cannot impart original value; but as it adds to the exchangeableness, so it adds to that value which the piece of metal already possessed.

There is no such thing as inherent value. Value requires a thing desired, and a person desiring. Value is a relation. Gold has no inherent value for the starving man on a wreck: a crumb of bread would be preferred by him. Nor has water, though used by all, any value where all may have it; but it receives value where some have it, and others not. We use the term value, also, for things desired, and for which we are ready to part with other things possessed by us.

Political economy deals with exchangeable values only.

Free trade is nothing more than protection against obstruction. The true name for the protectionist would be obstructionist. Free trade is protection of every man's own.

Rapid circulation promotes civilization; and as civilization advances, it requires circulation increased in extent and in rapidity. Man removes natural obstacles by roads, canals, navigation, and he creates greater ones by protective tariffs.

In point of political economy there is no difference between selling and buying. If A buys flour with money of B, B at the same time buys money with flour of A.

All process of accumulation is slow; that of destruction, quick. A town is slowly reared, but a conflagration can consume it in a night. It is the same with capital, and all wealth.

The factors of wealth are industry, security, frugality and communication. No wealth can accumulate where either of these factors is wanting. There is no other source of wealth but production. Wise exchange is production.

An ill-spent tax is worse than robbery; for it is the taking away of part of private property, under the name and by the force of law, for illegal purposes.

If wealth consisted in money, mankind could not become richer. There could only be the process of the two buckets in the well, and in each transaction of trade one party would necessarily be a loser.

No enterprise, failing by its own unprofitable nature, can be at the same time ruinous to the adventurers, yet advantageous to the community. If a railway cost $500,000, and shares fall to $25 in the hundred, because travelling and freight pay a fair interest of $100,000 only, in that case the community have for ever lost the value of $400,000, and the passengers and freight are carried at the rate of the regular and fair price, *plus* the interest of $400,000 proportionately divided in the course of the year. Nothing is more common than to hear that a hotel or a canal has been ruinous to the adventuring individuals, but that the people have reaped the advantage of it. This cannot be. The same applies to government undertakings. They cannot be advantageous to the whole, (so far as productive effects are concerned,) although they would be ruinous to individuals.

Almost all modern free nations have set out with protection so called, because freedom implies that the popular voice has its proper weight, and the people necessarily first judge by immediate appearance. If they sell their own products higher, they think that they are gaining, not seeing what they lose as consumers, and they suppose that money constitutes wealth. But almost all new governments, struggling into existence, have shared the same error—monarchical as well as popular—for instance, Prussia.

Common sense is the native sound judgment which guards us against the too-much and the too-little, (the *minimum*,) in the application of rules and principles to given practical cases. It becomes tact, but is no intuition. It is necessary everywhere, and in all spheres, but dispenses with no reasoning and no experience. Common sense cannot plough the field, it cannot become a substitute for agricultural science; but without it neither plough nor science can be applied in each concrete case. Common sense does not render political economy unnecessary; but political economy cannot do without it, any more than religion, philosophy, or the healing art can.

Men have always been political economists, as there have always been philosophers or physicians, that is, they have always been guided by reflection, correct or erroneous, upon subjects appertaining to these spheres; but a long time elapses ere an Aristotle, Hippocrates, or Smith, gathers the experience of ages into a coherent system of knowledge. Whether political economy is a science or not, is indifferent. It is knowledge; it seeks truth..

All serious reflection and unbiassed thinking requires that we free ourselves from incidental associations of ideas contracted from appearances. Language exists before systematic reflection, and around every word clusters an unbidden association of ideas. Nowhere is this emancipation of the mind, and divesting of terms from incrustations, more necessary than in political economy, and with reference to no term, so much so, as to that of money.

Political economy is associated by many persons with utilitarianism, that is, that system which seeks for the *ultimum bonum* in the merely physical welfare of man. This is no truer than confounding religion with certain religious errors, or with fanaticism, hypocrisy or priestcraft. Political economy simply endeavors to ascertain the laws of production and consumption—the principles of exchange. Exchange is an exclusive characteristic of man, and a basis of his highest interests and aspirations. So long as man's soul is united to his body, so long is political economy of importance.

Free trade is the principle of the gospel of peace and good-will, carried out in the world of exchange. Protection is short-sighted selfishness.

Free trade is nothing but the natural state of things, like free communion. It would not have acquired any importance as a separate subject, any more than free breathing, had there not been a period when, with our race, it was almost universally and fearfully invaded. Now it is necessary to re-establish and fortify it by legislation.

Free trade has arrived at that period, at least, when it is universally acknowledged *within* each country. The next period will be when it is acknowledged within our entire race, and people will speak of protection as we now speak of the beauty patches of the last century.

Single fortunes, single busy places, strike the minds of men. They are palpable, yet they prove nothing as to general wealth. So does each war, however ruinous, produce some gigantic gains, and the most lavish monarchs enrich their capitals. There existed never greater fortunes than in the Roman empire at its worst period, amidst universal ruin.

The physical desires of men are remarkably uniform in all, and multifarious in each individual. All palates relish saccharine substances. The capacity of the earth to satisfy these uniform and multifarious desires, is remarkably diversified over the globe, and limited to districts. Few countries produce sugar. This apparent incongruity reveals the wisdom and goodness of our Maker. Out of it arise exchange and civilization. Territorial division of labor is still more important than individual. It is a truth of great importance for natural theology.

Art. VI.—AGRICULTURE.

COTTON CROPS — COTTON MATTRESSES—SUGAR CROP—VINE CULTURE IN TEXAS—HOGS IN THE WEST.

It appears to be the impression of many of the oldest cotton factors and planters of the South, that the coming cotton crop will not be a full one. They argue, that it will not be as large as the last two, since those were very large, *and since* we never have more than two such crops in succession.

Various estimates are made as to the amount of the last crop. Mr. George G. Henry, an old cotton factor of Mobile, estimates that, up to the first of April, the total receipts had been 2,757;753 bales; "and we do not believe," says he, "there are yet to come in more than 175,000, which will together make 2,932,000 bales."

All these estimates, however, must necessarily be very uncertain. A writer in the Charleston Mercury puts down the receipts up to first of April, at 2,760,000 bales, and estimates by comparison with previous years, that the receipts from April to September will reach 480,000 bales, making the total receipts 3,249,000 bales. There has been a great excess of cotton received this year, up to the first of April, over the quantity received last year, up to that time. The excess amounts to some 485,000 bales; but it is contended by some that this excess is no indication of a material excess in the total crop, but that it arises from greater facilities of this year than the last. The same reasoning, says a correspondent of the *Charleston Mercury*, under similar circumstances, was urged as to the crop of 1848 to 1849. The receipts to the first of April exceeded those of the previous year 408,000 bales. From the first of April to the first of September, they amounted to 550,000 bales, and ended in a final excess of 400,000 bales, showing the fallacy of any such reasoning. The total crop of this year is not likely, therefore, to be less than from 3,250,000 to 3,300,000 bales.

The crop of this year has been coming in ever since the 1st of September, and hence it is supposed, by some, that it is exhausted.

The enormous consumption of cotton, great as is the increased production, leads us to consider what course prices are likely to take. The consumption seems to keep pace with the greatly increased production. The crop of 1851–'52 was several hundred thousand bales greater than had ever been raised, and still the demand fully keeps pace with the supply, and prices manifest no overstocking of the market. Consumption, indeed, seems to be gaining on the production, the increase of which is in the United States alone. There is no indication, at present, of a decline of prices; indeed, if the present crop should fail in the least, we may expect to see prices advance to an unprecedented extent. It is impossible to say what a decline in the crop may cause to take place. In 1849–'50 the crop fell short of that of the preceding year 650,000, which shows how uncertain is a reliance on the supply. If there was an increased production going on in other cotton regions besides our own, the prospect of overstocking the market and bringing down the prices would be greater; but we are the only cotton producers who may be expected to increase the supply. The speculation in cotton, this year, is likely to be greater than ever was known. The consumption moves on a gigantic scale. The consumption of Europe alone, last year, was 3,077,000 bales, an excess over the previous year of 459,000 bales. Money is abundant, manufacturing interests reaping handsome profits, peace and prosperity prevailing—what is there to prevent a steady continued increase in consumption, and a higher scale of prices?

Since 1845, the annual consumption of cotton in Great Britain has increased more than 12½ per cent.; on the continent, 27 per cent; and in this country, 50 per cent. There has also been a *decrease* of 20 per cent. of India cottons imported into Europe.*

2.—The new invention of Mr. Robertson, now patented, by which he renders cotton a better article for mattresses, cushions, &c., than feathers, hair, wool, moss, or anything else that has ever been used in upholstery, cannot fail to create an immense demand for raw cotton. If all our mattresses were made of cotton, what an immense quantity of it would be required to furnish the millions of this country alone! There are about 4,400,000 families in the United States. To supply each of them with only *one*, mattress, weighing say 50 pounds, it would require 550,000 bales.

Prof. Page, of the United States Patent Office, speaks in the highest terms of Mr. Robertson's patent.

He says: "From the time the invention was first presented to me as an examiner of patents, I have never entertained a doubt as to its practicability and high importance. With a view to test the merits of the cotton mattress, I prepared, according to the directions in the patent, a small bed, and not only found its pretensions fully justified, but became fully satisfied that the cotton mattress was superior in every respect to wool, hair, husk, moss, or any other kind of mattress in use; and in my report to the Commissioner of Patents gave it a high rank among the inventions of that day. From the nature of the material employed, these mattresses are perfectly clean, sweet, and wholesome; and from the manner of employing the material in the construction of the mattress, it retains its elasticity and softness for any length of time. The patent claims, that it will be able to supply all with mattresses and beds better than those of feathers, wool, hair, moss, or any other material, and from 50 to 75 per cent. less in cost. This is certainly a matter worth looking into. The patent needs only to become known, and all engaged either in the production, sale, or manufacture of cotton, should be the first to patronize the ingenious patentee. They would in that way stimulate prodigiously the demand for cotton, and in quarters where there never has been any demand before.

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* De Bow's Industrial Resources, vol. i., p. 155.

3.—The late valuable work of Mr. P. A. Champomier, on "the Sugar Crop of Louisiana, in 1852–'53," furnishes us with some interesting details regarding the production of sugar in the great sugar region of the United States, where the last crop, both of sugar, cotton, corn, and other agricultural products of Louisiana, was one of the greatest ever known. According to M. Champomier, the total sugar crop of Louisiana was as follows:

Brown sugar, made by the old process	275,671 hhds.
Refined, clarified, &c., including cistern	46,263 "
Total	321,934 hhds.

which, at an appropriate estimate of 1,125 lbs. net per hogshead, gives 336,129,000 lbs. Of this quantity, 32,480 hogsheads, being the product of fifty-one plantations, were made by the various new processes and vacuum principle, the balance of the crop being worked by the usual process of open kettles.

The yield of molasses has been somewhat less than that of last year, on many plantations; though on the other hand, others have produced large quantities of the article; so that, on a general average, it may be estimated at seventy gallons per thousand pounds of sugar, or 25,700,000 gallons on the entire crop.

The number of sugar-houses in the state is 1,481, of which 943 use steam and 538 horse power.

Mr. Champomier states the product of sugar in Texas, this last season, to have been 11,028 hogsheads, of somewhat lighter weight than our Louisiana hogsheads, averaging one thousand pounds each.

Mr. Champomier also speaks very favorably of the sugar crop of Texas, which state is destined to become immensely productive in that crop. A large portion of the state is as well adapted to the cultivation of sugar as Louisiana; and it will not be long before sugar will be the largest crop in Texas. New sugar plantations are constantly opening in that state; and there is only needed the capital and the experience of the Louisiana manufacturers, *to enable* Texas to produce sugar equal to any.

4.—Our late passage up the Ohio River allowed us the pleasure of seeing, along the banks of that beautiful stream, those delightful vineyards, which thrive so admirably in Ohio and Indiana. They reminded us that our new and rapidly-progressing state of Texas was also beginning to show its excellent adaptation to the cultivation of the grape. We speak from actual observation. We have many a time feasted on the most delicious grapes, in our rambles through the hills and along the limpid streams of Texas. We know that there is not a finer country in the world for the cultivation of the grape—not even *la belle France*. We see, by a late number of the Houston Telegraph, that wine of the finest quality is now produced in that state. The editor of the Telegraph says: "We are indebted to Col. Wm. E. Crump for several bottles of excellent wine manufactured from the native grape. He has succeeded in making a white wine from the Mustang grape, which we consider far better than the best samples of Catawba wine that we have received from Cincinnati. The red wine he has made from the same grape is of an excellent quality, and resembles the best claret; he has also made wine from the winter grape, which ripens late in autumn. This wine has a delicious flavor, is of a deep red color, and resembles the red Rhenish wine. The experiments which this enterprising gentleman has made in the cultivation of the native grapes indicate that the wines of Texas will soon be as much sought for by the amateurs as the best wines manufactured from the Catawba, Scuppernong, or Isabella grape. We are confident that the vine can be cultivated to a far greater advantage in the undulating region of Texas than in any other part of the Union. The climate and soil of this region resemble those of the best wine-growing sections of Europe and Asia.

5.—Under our agricultural head we take the liberty to introduce the subject of the pork production of the West. It is one of immense importance. The *Cincinnati Gazette* furnishes us some valuable statistics on this subject, which we must notice. We give below the total number of hogs killed in the West during the last two seasons:

	1851-52.	1852-53.
Total in Illinois	231.569	324,850
do. Ohio	547,373	603.152
do. Indiana	447.352	590,945
do. Kentucky	205,600	383,300
do. Tennessee	10,000	36,500
do. Iowa	40,500	52,652
do. Missouri	69,436	87,200
do. Michigan	10,800	10.400
Recapitulation		2 044 005
		1,562,580
Increase in number		481,425

Thus a very large increase is shown over the business of last year; but this excess is reduced somewhat by the falling off in weight. After a full and careful investigation, the Gazette estimates that the averaged decrease is about ten pounds to the hog, or five per cent. This decrease on the aggregate number of hogs given above is equal to 100,000, and therefore reduces the excess to 381,425 head.

Reducing the crops of both years to pounds, and estimating last year's average at 208 pounds, and this year's at 198, we have the following result:

Crop of 1852–53, in lbs.	404.712 990
Crop of 1851–52, in lbs.	325.016,640
Excess in lbs.	79,696,350

This shows an increase of twenty-four per cent. over last year. when the crop was six per cent. deficient, as compared with that of 1850–'51.

In view of these results, the Gazette remarks that the increase in the crop this season has proved much greater than was anticipated; but accounts for the excess from the extraordinary high prices which prevailed throughout the season, causing farmers to sell off their hogs closer than usual.

Thus, while the excess in the crop is really only moderate, the surplus has been increased very much beyond the anticipations of operators.

This state of things will, of course, have some effect upon the market during the season; as, at moderate prices, farmers, instead of being sellers of bacon during the summer, will, unquestionably, be purchasers, but to what extent this will be the case, it is, of course, impossible for us to determine.

The product of lard, *per hog*, has decreased from seven to ten per cent., as compared with last year; and hence, we find that article commands a relatively higher price than meats.

Cincinnati is the greatest pork market in the world ; and the pork trade there gives employment to some 10,000 persons. The entire number of hogs in the United States, in 1850, was 26,301,293. The principal increase, since, has been in the West, and the number is now estimated at 45,000,000.

Art. VII.—COMMERCE AND FINANCES.

PROGRESS OF AMERICAN COMMERCE—COFFEE TRADE—COMMERCE WITH MEXICO; PRESENT CONDITION OF MEXICO—COMMERCE WITH CHINA AND THE PACIFIC—CANADIAN AFFAIRS AND COMMERCE; NOVA-SCOTIA—GOLD AND GOLD MINES—THE PRECIOUS METALS.

THE commercial and financial aspect of the United States, at the present moment, presents a theme of intense interest and importance to every philosophical observer of the progress of nations. Until about fifty years ago, men read with wonder and astonishment of the busy scenes of commerce and of immense wealth that the great commercial cities of Europe and Asia used to present. How much has been written of the wonders of European trade; and with what intense interest used to be read the wonderful accounts of the commercial bustle and astonishing wealth of London, Amsterdam, Venice, and the Hanseatic towns of Europe—and further back, of the commerce of Carthage, Byzantium, Alexandria, of Candia and Rhodes, and of Tyre and Sidon. But what now are all those magnificent pictures of commerce and wealth—truly astonishing as they were—when we compare them with the commercial aspects of the world at the present day? They sink into insignificance. The commerce and wealth of a single city of the New World surpasses all that can be said of the entire trade of the Mediterranean, even when Venice and Genoa were filled with merchant princes, and whitened with their sails the waters of every sea at that time known.

No adequate idea can be formed of the present commercial activity of this country except by seeing it—by visiting our great cities, our vast ports crowded with shipping, our gigantic steamships—that new feature of modern commerce—that now cross the ocean, and visit the most distant countries in fewer days than it formerly required months to effect a communication. One must navigate our rivers, crowded with steamers of vast size, freighted with the rich products of our valleys and prairies; he must pass over our long lines of rail-road, running in every direction through our country, and witness the agricultural, manufacturing and commercial activity of the hundreds of villages, towns and cities, that diversify the aspect of this vast republic; one must see all the immense trade that lines our rivers and lakes; and then he will begin to get some idea of the growing commerce of this country—we say growing, because it is now only, we may say, fairly commenced.

It is quite certain that the amount of funds now being invested in trade of every description, and in rail-roads, shipping, steamships and steamboats, in buildings of every description, in manufactures and in lands, is far greater than ever has been known before in this country—all creating a vast amount of industrial activity in every department of the arts and trades. Everything seems to be projected on a more magnificent scale every two or three years, and that, too, without any appearance of an artificial basis, or without causing a greatly increased demand for money. The expenditure for new-buildings in New-York alone, for the present year, cannot be less than $6,000,000, and the amount of money withdrawn by persons engaged in traffic from their business, and invested in dwellings, is very large. It has been estimated by the real estate auctioneers, that property to the amount of $20,000,000 has passed through their hands since January. In Broadway, the cost of new buildings for the present year has been $1,990,000; and in the Fifth Avenue, $1,375,000, or $3,350,000 in only two streets, and this does not embrace the whole expenditure in those streets.

The commerce of the United States is a true index of our prosperity and progress. In 1821 the entire commerce of the country amounted to only $127,560,196; while the amount in 1851 was $434,316,410! Our exports in 1851 and 1852 amounted to $389,033,070, of which the raw cotton amounted to $200,281,049; other domestic products, $133,245,709; United States' coin, 55,507,312.

The Coffee Trade of the United States exhibits a notable increase. The total receipts in the United States, for the year ending December 31, 1852, says the *New-York Shipping List*, were 1,453,622 pkgs., estimated weight 205,542,855 lbs., against receipts in 1851 of 1,507,603 pkgs., weighing 216,048,870 lbs., being a decrease in receipts of 53,981 pkgs.; and after deducting the exports of 1852, the quantity taken for consumption exceeds the whole receipts by 13,133,890 lbs., reducing the stock in the country that amount, and making an increase in the consumption of 1852 over 1851 of about 11 per cent.

We have made no deduction for the quantity taken from New-York, Boston, &c., and shipped inland, via canal, &c., for the Canada markets, having no reliable data at hand for such shipments. The quantity, however, is very inconsiderable; by the official tables of the trade and navigation of the province of Canada, the total quantity entered for consumption for the year ending 5th January, 1851, was 1,129,794 lbs., of which, from the United States, 1,062,008 lbs.; and for the year ending 5th January, 1852, from the United States, 1,093,869 lbs., being an increase of 3 per cent. Assuming the same rate of increase for last year, would give but 1,126,685 lbs. taken from the United States. There is besides a small quantity passed over the frontier of Texas into Mexico, of which we have no account.

Our commercial relations with Mexico, at the present moment, are exceedingly interesting, taken in connection with the present political relations of the two countries. We take from the Report of the Secretary of the United States Treasury the following picture of Mexican commerce with this country, since 1829. It shows what bad government can make of one of the richest countries, naturally, in the world :

For the year ending 30th	Imports from Mexico.	Imports to Mexico.	Last quar. of 1842, & 1st	Imports from Mexico.	Imports to Mexico.
Sept., 1829,	$5.026,761	$2,331,151	2 qrs. 1843,	2,782,406	1,461,937
1830,	5,235,241	4,837,458	For the year		
1832,	4,293,954	4,467,541	ending 30th		
1833,	5.452 818	5,408,091	June, 1844,	2,387,621	1,794.833
1834,	8,066,068	5,265,053	1845,	1,702.936	1,152,331
1835,	9.490,446	9,029,221	war yr. 1846	1,836.621	1,531,180
1836,	5,615,819	6,041,635	" 1847,	481,749	238,004
1837,	5 654.002	3,880.323	1848,	1.581 247	4 054 452
1838,	3.127,153	2.787.362	1849,	2 216.719	2,090,368
1839,	3,500.707	2.164,097	1850,	2,135,366	2,012,827
1840,	4,175,001	2,515,341	1851,	1,804,779	1,581,783
1841,	3,484,957	2,036.620			
1842,	1,996,694	1,534,233			

By this table, covering nearly the whole period of our intercourse with Mexico, it will be seen that, from having a trade worth, in *exports and imports*, about nineteen millions and a half, in 1835, it is now reduced, in 1853, to about three millions.

The present total debt of Mexico is $76,179,406. The foreign debt, in 1852, was $52,744,497. The total debt of Mexico includes $40,000,000 due to creditors before the independence of Mexico. Since the administration of Bustamente, 1832, the foreign debt has increased $18,456,747, having yielded the creditors, in the same period, $22,811,747.

Since 1832 Mexico has lost 1,939 square leagues more than half of her territory in 1820; or, in other words, she has lost, since 1832, 109,944 square leagues—her whole territory, in 1820, being 216,012 square leagues, of 5,000 yards to the league. It would have been a blessing to Mexico if she had lost the whole of her territory, when conquered by us in the late war. She would thus have got rid of all her tyrants, and be now enjoying the benefits of our government and laws. The present extent of the Mexican territory, since the treaty of Guadalupe Hidalgo, in 1848, is 106,067½ square Mexican leagues. For further information on this subject we refer the reader to our article on Mexico, in a late number of the "Review."

Of late the attention of the United States has been drawn to our commerce in the Pacific Ocean, and to our trade with China and Eastern Asia in general. Undoubtedly this is the great field in which our foreign commerce is destined to receive its widest expansion; but the manner in which it must begin, is that of establishing a great line of ocean steamers between California and China, connected with a rail-road across the Isthmus of Tehuantepec, or with some other one having a terminus on the Pacific. When these two things are done, our commerce will take a stride westward, and grow up in that direction, if not, like Jonah's gourd, in a single night, at least fast enough to astonish the world by its progress.

The amount of our trade with China at the present time, in cotton and woollen goods, is as follows: Unbleached muslins, 90,523 pieces; bleached muslins, 6,398 pieces; twilled cottons, 116,140 pieces; calicoes or chintzes, 3,130 pieces; cotton handkerchiefs, 250 dozen; cotton yarn, 59,567 lbs. Woollen goods—broad cloths, 615 pieces; cassimeres, 968 pieces; camlets, 4,958 pieces.

The amount of property afloat on the Pacific Ocean is also shown. It is put down at 1,284 sail, aggregating 403,168 tons, employing 34,000 American navigators. The total value of this property is estimated at $70,000,000 In case of a war with England, it could be swept from the ocean by her steamers in the East India and Chinese seas before any armament could be sent round Cape Horn for its protection.

Here we see the necessity for such a line of steamers, between California and China, as was proposed by Ambrose W. Thompson, at the last session of Congress. His proposition was, that the line consist of six steamers of not less than 3,000 tons; each steamer to be pierced and ready for mounting of the heaviest batteries for war purposes, but in time of peace to carry always four guns of the largest calibre. In the course of the voyage they are to perform the naval service in the North Pacific. They will thus afford the most ample protection to the whaling and commercial marine in those seas, and completely relieve the government from the necessity of keeping a naval squadron at that distant and expensive station. By careful examination, it is found that this will be a saving of one million and a quarter of dollars per annum to the Navy Department. This line is to make semi-monthly trips between California and China, touching in going and returning at the Sandwich Islands, and at some port in Japan so soon as communications are opened with that empire.

Until this, or something like this is done, our trade will drag on slowly, as heretofore, with Asia, and all our shipping in the Pacific will be a prey for England, Russia, or France, to pounce upon, whenever they might think proper. A general war in Europe—and another is not far off, probably—might involve ourselves; for we cannot always expect to enjoy peace with Europe.

To see how far ahead of us England is in her trade with that country, compare the following exports of hers with ours, as given above: Unbleached muslins, 1,792,821 pieces; bleached

muslins, 645,356 pieces; twilled cottons, 133,591; calicoes or chintzes, 75,174 pieces; cotton handkerchiefs, 61,480 dozen; cotton yarn, 4,314,957 lbs. Woollen goods—broad cloths, 334,643 pieces; cassimeres, 303,717 pieces; camlets, 381,673 pieces; blankets, 6,335 pieces.

The present annual revenue of Great Britain from the tea trade alone, is over twenty millions of dollars, as we have shown in a previous article.

Should our government establish a line of steamers between California and China, letters and passengers would be able to reach the eastern shores of Asia in forty days from New-York; and a rail-road across the country, from the Gulf of Mexico or the Mississippi Valley to the Pacific, would reduce the transit from New-York to China to twenty-four days. It is needless to enter into any speculations regarding the almost immediate effect of the great facilities which such a line of steamers would create. The products of China and of the East Indian Archipelago, would immediately seek that route to America and Europe, and Europe would be dependent on us for her Asiatic mail transportation.

Nor is the progress of our trade entirely toward the south and west. For several years we have been talking much about our Canadian relations—our Canadian commerce—and of Canadian reciprocity. Old notions, older than what are called stereotype notions—for stereotyping is a modern art—have ever hung upon the English and Canadian mind, dulling its energies, and preventing that progress that is so remarkable on this side of the St. Lawrence. The Canadians are, of late, beginning to understand what reciprocity means; but still they do not fully see the merits of the thing, nor will they until they cease to cry "God save the Queen!" to a sovereign 3,000 miles off. Nothing is more striking than the difference—social, commercial, agricultural, industrial and progressive—between Canada and the states of our union adjacent to it, from the Atlantic to Minnesota; and the question is often asked, why is this? The shortest and best answer that can be given is: *That is the difference between a monarchy and a republic like ours.* Send home her aristocratic governor-general, her standing army, twice as large as that of the whole of the United States; break up her state religion, build bridges across the St. Lawrence, and give the people our constitution, and the Canadians would soon be just like ourselves. There would then be no further talking about reciprocity. The progress of Canada, compared with that of our adjacent states, may be seen by inspecting the following table, showing the advance of the population in the two countries since the year 1830.

	1830.	1840.	1850.
Canada	258,835	512,855	572,195
New-York	1,918,608	2,428,921	3,097,394
Michigan	31,639	212,267	397,654
Wisconsin	None.	30,945	305,191
Iowa	"	43,112	192,214

The one is the progress of a free, intelligent race of republicans; the other, of a race of men of the same Anglo-Saxon stock, dragging along with them the heavy car of monarchy!

The work of reciprocity began in 1815, when England, reluctantly, relaxed the rigor of her navigation laws. Andrew Jackson, in 1829, opened negotiations with England relative to her colonial trade, and succeeded in effecting an arrangement by which that trade was opened, in free ports, to American vessels, and the United States trade to colonial vessels. This arrangement continued until Mr. Meredith, in 1849, restricted colonial vessels to ports of entry in the United States. The great political privileges which the British North American provinces have obtained, of late years, have been put to a good account. They have increased their trade with this country, and their revenues, by modifying their tariffs. In 1848 England abolished discriminating duties, and our manufactures are now admitted into the provinces on the same terms as British.

The warehousing system of this country, and the drawback law, have also greatly aided colonial trade with this country, and England has reciprocated in her navigation law of 1849. Under all these changes, the trade of the British provinces has greatly improved, while, as we have observed in our article on the American fisheries, some disadvantages have been experienced by ourselves. If England is not disposed to modify her fishing regulations, the administration of General Pierce will doubtless effect some changes, at least so far as to prevent an English monopoly of the fish trade in our own ports. It behooves our present administration to look to this matter speedily.

The following table gives an interesting view of our commercial intercourse with Canada. It is from the official returns:

		Exports.			
	Domestic.	Foreign.	Total.	Imports.	
1843	2.607,004	107,217	2.714,221	657.696	Stanley Circular.
1844	5,361,186	1,354.717	6,715.903	1,465,715	
1845	4,844.966	1,209,260	6,054,226	2,020,065	
1846	6,042.666	1,363.767	7,406.433	1,937,719	
1847	5,819.667	1.455.848	7,275.515	955.926	Warehouse, U.S.
1848	6.399,959	1,982,696	8,382.655	3,646,367	Drawback.
1849	5,932.606	2,172,161	8.104,767	2,826,880	Free Navigation.
1850	7,758,291	1,790,744	9,549,035	5,644,462	
1851	9,060,387	2,954,536	12,014,923	6,693,121	

From this it appears that our exports to the British provinces have increased fivefold, and our imports tenfold since 1843 Our imports from Canada are chiefly breadstuffs and specie which are re-exported from this country in bond; and our exports for consumption in the British colonies are chiefly our domestic products, including provisions of all kinds. What an immense impetus would be given to our trade with the British North American provinces if all present restrictions were thrown off, and the trade between the two countries made as free as our internal trade between our States! What immense resources has Canada if they could only receive development! Let there but be a grand ship canal from the St. Lawrence to Lake Champlain, and thence to the Hudson, capable of floating a vessel of 500 tons, and it would be to Canada what the Mississippi is to its great valley. What floods of wealth would, in a few years, begin, under a perfect system of free trade, to flow out of that great country north of the lakes!

Some very interesting details have recently been published in a report to the House of Assembly of Nova-Scotia, regarding the trade of that province with this country. From this report it appears that the amount of goods, wares and manufactures, imported into the port of Halifax alone, from the United States, during the year 1852, was $317,260, chiefly at a duty of six and a quarter per cent. and under, which, if imported into the United States, would have been charged with a duty of from twenty to forty per cent., and which, it is contended, could be manufactured in the province as cheaply as in this country—that the total amount of importations into Halifax from the United States, during the same year, including $370,148 of flour and breadstuffs, was $889,174; and that the total exports, during the same period, amounted to $343,672; leaving a balance of $545,402 in favor of the United States in that port alone, being an increase on the preceding year of no less than $151,614, while the exports have diminished during both years. The report also states, that the value of our imports of manufactured goods into that province amounts to a considerable sum, and so greatly exceeds the exports to this country as to constitute a disadvantageous and adverse trade.

The same report complains of "the ruinous effects of the low rate of duties" imposed on American manufactures, and calls loudly for protection from foreign competition. It would seem that there is some ground for complaint on the part of the people of Nova-Scotia, since our manufactures are required by their tariff to pay a duty of 6¼ to 10 per cent. *ad valorem;* while the same articles imported into this country pay a duty of 30 per cent.

We will close this branch of our subject with the observation, that the British provinces of North America have an area of 218,339,415 acres, and a population of 2,500,000, a commerce with all countries amounting to $70,200,000, of which about

$19,000,000 is with the United States, and $30,000,000 with Great Britain. These colonies own and employ shipping measuring nearly 500,000 tons.

Our lake commerce is another subject of interest. From the official returns made to the Provincial Legislature of Canada, for 1852, it appears that the number of vessels that passed through the Welland Canal, connecting Lake Erie with Ontario, was as follows:

British Vessels.	Up.	Down.	Tonnage. Both ways.
British to British ports	843	581	173,892
British to American ports	460	386	74.200
American to British ports	375	424	132,095
American Vessels.			
British to British ports	3	1	326
British to American ports	144	696	80,126
American to British ports	175	147	24,700
American to American ports	1,149	1,071	467,467

There are also the St. Lawrence and Chambly canals, connecting immediately with American territory. The number of tons of merchandise that passed through the St. Lawrence canal, in 1852, was 492,975; and on the Chambly Canal it was 87,514. The tolls on the three canals, in 1852, amounted to $328,932.

The gross value of the commerce of the lake ports in 1851 was $326,000,000; licensed American tonnage, 215,000 tons; entered and cleared at all the ports, about 9,500,000 tons. Our commerce with Canada was over $12,000,000, of which two-thirds were exports. The Canada trade for 1852 has fallen off $1,500,000, while the lake coasting trade has increased about 25 per cent., making a gross aggregate for the last year of over $400,000,000.

The financial condition of this country, at the present moment, is one of unprecedented prosperity. Money is abundant, and there is still nothing of that hollow inflated system of things that has existed in former periods of great apparent prosperity. There is evidently a very great advance in commercial operations since last year, if the condition of the receipts of customs duties is any index of the state of foreign trade. At no previous time have the government receipts from customs been so great, as is shown, from the official returns, for the quarter ending March 31st, 1853. The receipts for the first quarter of the fiscal year 1853, were $15,728,992; for the second quarter, ending March 31st, they were $16,208,498; making the receipts for the first half of the present year, arising from customs alone, $31,937,490. This is more than the entire receipts of any one year from 1844 to 1849 inclusive. The receipts for the second quarter of 1853 are about $4,000,000 more than those of the same quarter of last year.

The effect of the discovery of the California gold mines does not appear to have, as yet, wrought those great financial and commercial changes that were so confidently predicted—a great disturbance in the relative value of every article of trade, and a notable rise in prices. It is true that prices in Europe have risen; but even there the change is not so very great; while, in this country, the change is still less. This is explained by considering, that the increased supply of gold, or any other circulating medium, will always become apparent in any country, inversely as the amount of the industrial activity of that country. Gold appears to be more abundant in Europe than here, because there, there is less industrial activity of every description to absorb it; while, in this country, our greater industrial activity, the constant influx of emigrants, our incessant and greater locomotive activity, our greater interchange of products, our incessant formations of new settlements in uncultivated regions, and, in short, our great activity of every description, makes use for money as fast as it is received, and it is thus absorbed at once, and kept from lying in inglorious inactivity, and from being hoarded up, as in Europe. The value of it is thus kept from depreciating. Here we have more use for money than in Europe, and thus gold here is worth more. Europe, with the same amount of gold thrown into it, as into this country, at any time, would be much more abundantly supplied, relatively to its industrial requirements, than this country, and thus she would feel a financial plethora; while we would experience no disturbance of our financial health.

The effect in Europe has been, to increase the demand for foreign, and especially American productions, while the gold flows outward from Europe towards the great points where proceeed those foreign products. This is the natural course of things. It is often asked, where does all the gold go to? The following table, which we take from the New-York Economist, will show where the greater part of it goes, except what is absorbed in industrial activity:

QUANTITY OF SPECIE EXPRESSED IN DOLLARS IN THE BANKS OF NEW-YORK, LONDON AND PARIS.

		Banks of New-York.	Bank of France.	Bank of England.	Total three Banks.	Rates of Interest in Lond.
December,	1848	$5,850,424	46,588,399	73,143,717	125,582,490	3
December,	1849	9,969,750	83,848,000	81,984,000	175,801,550	3½
December,	1850	11,002,800	93,003,470	73,324,216	177,330,486	3
March,	1851	—	104,106,104	65,854,215	—	3
June,	1851	7,985,954	107,714,800	66,844,215	182,544,868	3
September,	1851	6,032,463	121,340,220	71,776,320	199,149,003	3
December,	1851	7,364,439	106,635,406	83,738,868	197,738,713	2½
March,	1852	9,716,070	114,147,046	93,648,480	217,511,596	2½
June,	1852	12,156,116	109,861,488	106,714,268	228,731,866	2
September,	1852	8,702,911	102,926,233	105,672,345	217,301,489	2
December,	1852	10,342,450	96,082,117	104,196,792	210,621,359	2
January 13,	1853	12,000,000	90,455,766	91,912,833	194,368,599	3

The increased prices of our products in Europe, has caused them to flow more copiously thither; hence the rise in freights, and the increased activity in transportation; while, as a necessary consequence, gold has been flowing back to our shores from Europe. Our exports of gold to England have gradually been falling off, because produce is found to be a better remittance than specie, in consequence of the high prices. The efflux of gold from Paris has been immense, and larger than from England. The efflux from France has been $24,000,000 since June, 1852. The effects of the abundance of gold have been more sensibly felt in Paris than elsewhere in Europe, where immense speculations have been fomented. There has, indeed, been an increase of bank discounts everywhere. In Paris, since September last, the increase has been $8,000,000; in London, $5,100,000; and in New-York, $3,000,000. In the provinces of France the inflation has been even greater than in Paris. The discounts of the Bank of England are now $15,000,000 greater than they were a year ago; and the efflux of gold is now greater than its influx has been. To stop this efflux, the Bank of England, at the beginning of this year, raised the rate of interest to three per cent. The effect of this is already visible, in the falling off of the prices in some articles, and the efflux will, doubtless, only be temporary.

The receipts of gold in Great Britain, by a recent report, were for the last six months of 1852, £11,146,000, say $50,000,000. At the United States Mint they were $30,000,000, and the reduction in the banks as above is $34,000,000, making together $114,000,000, from which should be deducted the quantity sent from the United States to Great Britain in that time, $7,000,000, and there remains $107,000,000, which has gone, whither? The supplies of gold in Great Britain and in the United States were, for the last six months of 1852, as follows:

In England, from Australia	$21,475,732
In United States, from California	23.994,180
Total	$45,469,912

Of the quantity received in the United States, about $7,000,000 went to England, and has thence, in discharge of the large quantities of goods purchased and consumed by England, been distributed throughout the world.

The immense increase in the quantity of gold, of late years, has been accompanied with a steady decrease of silver. Where does the silver all find deposit? This metal, ever since the conquest of Mexico, has been flowing in vast quantities from America to the East Indian Archipelago, and to China. During a period of 225 years, ending with the overthrow of the Spanish Viceroyalty in New Spain or Mexico, the Spaniards maintained constant intercourse with Manilla, and the East Indian islands and China; and it is calculated that fully four hundred millions of dollars passed thither from Acapulco, and that one hundred millions, at least, of this amount, went from Manilla to China. Since 1784, about $100,000,000 in specie were exported from the United States to Canton. In sixty years of free commerce, Japan has poured into China another hundred millions. Siam and Cochin China sent thither large quantities of gold and silver in *ingots*. Fifty millions more have been added from various nations. The native mines yield about $3,000,000 yearly; and throughout the whole empire the metallic circulation, exclusive, we believe, of the brass "*tsin*" or "*cash*," is estimated at $500,000,000. Gold, though stamped in ingots, is used very little for exchange in trade. It is considered altogether as an article of merchandise, and is bought and sold in the money shops at current rates of about one "tael" of gold for sixteen of silver.

The commerce of Canton is carried on in Spanish dollars, in the selection and relative value of which the Chinese are extremely fastidious. The issues of Charles IV., are commonly the most popular, and command a premium, while the coinage of the United States and of the South American States, or of Mexico, are liable to a discount, varying from three to six per cent.

From these statements it will be observed that the accumulation of foreign and domestic silver in China, for two hundred and fifty years after the discovery of America, must have been very great. The account we consider may be stated as follows:

Imports of silver from		Manilla	$100,000,000
Do.	do.	United States	100.000,000
Do.	do.	Japan	100,000,000
Do.	do.	England, Portugal	100,000,000
Do.	do.	India, and other Western sources	100.000,000
Do.	do.	Siam and other Eastern sources	25,000,000
Total, foreign silver			$425,000,000
Add to this, for an aggregate production of the Chinese mines of $2.000.000 per annum, for 250 years, and we have a total of domestic silver			$500,000,000
Total accumulation			$925,000,000

Such was the condition of things in China as long as the commerce of that empire insisted on exchanging its productions for treasure alone.

Such was the flow of silver to the East, whence but little of it ever returned, until the opening of the opium trade with China by the English, about the middle of the last century. The effect of this iniquitous trade, forced upon China by the

English, has been to drain that country of its silver, and bring it back to Europe and America. From 1823 to 1833, China paid $72,000,000 in silver for opium, which silver found its way to Europe. From 1833 to 1839, six years, the same trade made an annual drain of silver from China of $18,000,000, or $108,000,000 in the six years. From 1843 to 1853, since the opium war, the Chinese have paid for opium the enormous sum, yearly, of $31,596,600, or, in the last ten years, $315,966,000! To this must still be added the $21,000,000 paid by China to England as indemnity for the 20,000 chests of smuggled opium, destroyed at the beginning of the war, and we shall have then the following result: Silver exported from China for opium, from 1823 to 1833, $72,000,000; from 1833 to 1839, $108,000,000; from 1848 to 1853, $315,966,000; for indemnity, $21,000,000; estimated consumption prior to 1823, 10,000,000. Making the total loss to China and gain to Great Britain of silver from the opium trade, $246,966,000.

If we deduct this sum from the entire accumulations of the Chinese Empire, as we have before exhibited them, we shall have a startling result, which demonstrates that the great bulk of silver must soon be concentrated in Europe or among the western nations:

Total accumulated silver in China, in two hundred and fifty years,	$925,000,000
Total of exported silver from China, in about fifty years, ...	556,966,000
Leaving..	$398,044,000

As the demand for opium in China is on the increase, the $398,044,030 of silver still left cannot last long.

We must here draw this article to a close; but we shall continue, monthly, to present to the readers of the Review a general commercial and financial paper.

Art. VIII.—RAIL-ROAD PROGRESS.

NEW-ORLEANS AND NORTHERN RAIL-ROAD—MOBILE AND GIRARD ROAD—RAIL-ROADS OF NEW-YORK—BALTIMORE AND OHIO ROAD—FLORIDA ROADS—MOBILE AND OHIO ROAD—LOUISVILLE AND NASHVILLE ROAD—EAST TENNESSEE AND GEORGIA RAIL-ROAD—NEW-ORLEANS AND BATON ROUGE RAIL-ROAD—ST. LOUIS RAIL-ROADS.

1.—The *New-Orleans, Jackson, and Great Northern Rail-Road*, is being urged with great vigor at New-Orleans, and we have the first annual report of the president, James Robb, before us. The State has completed its subscription of $1,600,000 to the road.

In August of last year, Mr. James Clarke entered on his duties as chief engineer of the southern division of the road, commencing at this city and extending to Canton, Mississippi. The cost of this division, which is the most expensive and difficult of construction, is estimated at $26,300 per mile, including depôts, workshops and equipments. The division—from Canton to Aberdeen—has been surveyed under the direction of Mr. A. P. Winchester. The result of his surveys has been deemed highly satisfactory; but the board, with a view of maintaining lower grades, have directed a revision of the route. The northern division, embracing the line from Canton to the Tennessee River, has been examined thoroughly for the last nine months, by a corps of engineers under Mr. James H. Grant, who was appointed engineer of that division in July, 1852. His examinations are looked upon as highly satisfactory. A maximum grade of 30 feet to the mile is believed to be easily attainable. Mr. Grant expected 131 miles of his division to be ready for letting by 1st June, and the remainder between June and August. In locating the road, the directors have been guided by the single consideration of promoting the interests of the company and the country.

The directors have purchased ten squares of ground on the upper line of the new canal, for $58,934 53. The expense of filling up the squares is estimated at $17,500. The depôt is considered as central as possible, under the circumstances. The cost of land at the intersection of Canal and Claiborne streets would have been four-fold, and the expense of opening a portion of Claiborne-street, through private property, has been estimated, by commissioners appointed for the purpose, at $125,000. Independent of these considerations, the difficulties, inconveniences and expense of crossing the new canal were deemed insuperable. Drawbridges would have had to be erected, and superintended at an annual cost of 40 or $50,000; and the continual arrivals and departures of trains and cars would have conflicted with the passage of vessels navigating the canal, etc.

The lowest grades have been maintained, consistent with the nature of the country and the means of the company. No road in the Union will compare more favorably with the grades reported by the chief engineer. On the southern division, between New-Orleans and Jackson, twenty-one feet is the maximum, and between Jackson and the Tennessee River, thirty feet. The curvatures are also slight.

Ten thousand tons of iron have been purchased; 5,000 at £9 2s. 3d., and £9 10s. for the remainder. The payment of the rail-road tax has been anticipated; and on the 22d of January an issuance of $1,800,000 bonds, at 8 per cent., payable on the first August, in the years when the tax falls due, was directed.

The cost of the road from New-Orleans to the Tennessee River is estimated at $10,000,000. Mr. Robb recommends the immediate issue of $6,000,000 of bonds, running thirty years, bearing 7 per cent. interest. No doubt is entertained of selling them on favorable terms. The realization of this sum would assure the completion of the entire line to the Tennessee River, in three years.

The income of the road is based upon the following calculation of receipts and expenditures:

RECEIPTS.

300 000 through and way passengers, averaging $5	$1,500,000
200,000 bales cotton, $1 50 per bale	300,000
Agricultural and mineral productions of Virginia, Tennessee and Kentucky	500,000
Horses, mules, cattle, sheep, etc.	100,000
Merchandise, groceries, and supplies sent from New-Orleans to the Interior	600,000
	$3,000,000
DEDUCT—	
Working expenses, and all other incidental to the management of the road, 40 per cent	$1,200,000
Profits	$1,800,000

Being 18 per cent. clear income on the present estimated cost of the road from this city to the Tennessee River. The item of public mails is not included above. This estimate is believed to be underrated, and solvent arguments are educed to show that it is.

By this road Washington City can be reached in forty-eight hours, and the Northern and Western cities in the same ratio of speed. The construction of the Opelousas road will add greatly to the business of the Jackson road. Its future extension to the Pacific is believed in, when will be secured, beyond competition, a new and extended commerce.

SUBSCRIPTIONS.

By City Council of New-Orleans	2,000.000	
By Individual	617,750—	2,617,750
Less reduction by taxes		159,225
		$2.458.525
Contractors		200,000
By six counties in Mississippi		717,600
Subscription of State of Louisiana		1,600,000
		$4,976,125

2.—The local subscription to the *Girard and Mobile Rail-road* is very limited, and being made by cautious planters, is entirely reliable. The subscription to capital stock, including the amount at Mobile, amounts to

Cash,	$1,546,225 79
Subscription in grading	169 miles.
" " wooden superstructure,	75½ "
" " brick	1.0 ,000

We may expect this amount to be increased very much in the next few months, and with the energy which the company's officers have so signally displayed, we may anticipate an early connection by rail, between the city of Mobile and the waters of the Chattahoochie.

3.—The railroad statistics of the State of New-York, which have been recently published, furnish us with the following particulars:

On 1,819 1-2 miles of railway, which, if double track and sidings be included, amount to 2,277 3-10 miles, and which have cost upwards of eighty four millions of dollars, the whole number of persons carried in 1852 was 7,440,653, and the number of miles travelled was 343,358,585. This distance travelled is very nearly three quarters of the way from here to the planet Jupiter, and almost four times as far as from the earth to the sun.

Of some of these travellers, the following table shows the rate:

Passengers.		*Persons employed on Railroad.*	
Killed.	Injured.	Killed.	Injured.
26	82	60	89

This shows that for every 300,000 passengers, one was killed, and for every 90,000 passengers, one was injured, during 1852.

Comparing these results with those given for 1851, there is an unfortunate increase in the killed of nearly 40 per cent., and in the injured of more than 100 per cent.

4.—It is with feelings of no ordinary pleasure, says the Cotton Plant, in speaking of the *Baltimore and Ohio Road*, that we notice the great increase of business upon this road. That it is destined to be the great carrying thoroughfare between the east and west, we have never had a doubt, and that the business of the road will exceed the most sanguine expectations of its friends, is becoming every day more evident. We think it but a fair calculation to estimate that the receipts will reach, ere another year passes by, the average sum of $300,000 per month. Under such promising prospects, no incident can long exist to depress its stock; and we feel assured that in a very short time it will become one of the most firm and steadfast stocks in the market, gradually reaching and going above par.

5.—The flattering prospects, says a Pensacola journal, thrown out by the enterprising and energetic citizens of Savannah, of a rail-road from that city to ours, have doubtless called forth the recent efforts of the Montgomery and Pensacola Rail-road. This rivalry creates a new hope in us, that we shall have one or the other of these roads terminating here. And we beg not to be censured, when we express a desire for the continuance of this spirit of rivalry, for the benefit of our ancient city.

6.—We extract the following from the last report of the Engineer of the *Mobile and Ohio Rail-road*, showing the present condition of the work:

From these statements of our local affairs, the means and progress of the road at this time are as follows:

In Alabama, for local work north of Citronelle to Kemper county line, commenced in May and September last, and bound to be done in all of 1853, to the centre of Lauderdale county—Mobile city subscription and work	$1,130,000
In Mississippi, for local work between Lauderdale and Pontotoc counties, to be finished in September, 1854—individual and county subscriptions	$1,181,800
In Mississippi, north of Pontotoc line to Tennessee line, to be finished in November, 1854—individual, county and work subscriptions	$ 762,300
In Tennessee to Kentucky line, to be finished 1st November, 1854—individual, county, and work subscriptions	$ 878 000
Making a total of	$3,952,200
for the 420 miles of road between Citronelle and Kentucky, now in progress of graduation.	
In Kentucky, line to Paducah will be ready for contracts by the 1st of August or September next, and to be finished 31st January, 1855—county and individual subscriptions	$ 350,000
To which add cost of local work of 33 miles completed	$ 500,000
Also, from sale of town lots at 12 stations of railroad located upon rail-road lands	$ 100,000
And our total of local means will be for local works, expended and to be expended upon the through line, Paducah and Tennessee river branches	$4,902,200
The revised estimates for the same local work, substituting the Paducah line for the shorter one to the mouth of the Ohio River, is	$4,776,576

7.—*The Louisville and Nashville Rail-road Company* have made large and favorable negotiations for money, through their chief engineer, in London; and having been successful in obtaining all the subscriptions asked for in every county on the line, together with a million of dollars on the part of Louisville, and $300,000 from Davidson county and Nashville, have closed a contract with Messrs. Morton, Seymour and Co., for the entire completion of the road in a period not to exceed two years and a half; the work to be commenced on the first Monday in May next.

8.—*The East Tennessee and Georgia Railway* is completed to Loudon, which is 28 miles south of Knoxville, and the remaining span is in a rapid process of construction. When this road is completed, there will be an uninterrupted railway connection between both Knoxville and Charleston, and Knoxville and Savannah. From Knoxville East, as far as the State line, (110 miles,) extends the East Tennessee road, nearly the whole of which is in a rapid state of progress. At the state line Virginia will meet us with the Virginia road, (204½ miles,) leading from the state line to Lynchburg. A considerable portion of this road is already completed, and all the balance is being pushed forward to completion with the greatest energy. From Lynchburg there is now a railway connection by Petersburgh with Norfolk. The distance from Knoxville to the three Southern Atlantic sea-ports stand thus:—

	Miles.
From Knoxville to Charleston via Dalton and Augusta	517
" Knoxville to Savannah via Dalton and Atlanta, &c.	501
" Knoxville to Norfolk via Lynchburgh	516½

The distance from Knoxville to Danville is estimated at 120 miles, and from that point to Louisville 80, making the total distance 200 miles. That makes the distance from Louisville to Norfolk, by way of Knoxville, 716½ miles.

The distance from Louisville to the mouth of Big Sandy is 213 miles, and from the mouth of Big Sandy to Norfolk 523¾ miles, which, when added, make 736¾ miles. Then we have the following results:—

	Miles.
From Louisville via Knoxville to Norfolk	716½
" " via mouth of Big Sandy to Norfolk	736¾

From Knoxville to Charleston, the contemplated route by way of Robun Gap will lessen the distance very considerably. Thus:—

	Miles.
From Charleston to Anderson, S. C., completed	255
From Anderson to Knoxville, not completed	197
	452

A still shorter route is proposed, which will most probably be adopted, and if so, then we will have the following distances between Louisville and Charleston:—

	Miles.
From Charleston to Aiken, in S. C., road completed	120
From Aiken to Knoxville via Savannah River and Robun Gap route	289
From Knoxville to Charleston	409
From Louisville to Knoxville	200
From Louisville to Charleston	609

The construction of the road to Charleston by way of Robun Gap, whether the longer or the shorter route be adopted, and of the road from this point to Danville and Shelbyville, will bring Louisville nearer to Charleston than Baltimore. Thus:—

	Miles.
From Baltimore to Cincinnati	570
From Cincinnati to Louisville	95
From Baltimore to Louisville	665
From Louisville to Charleston, longer route	652
From Louisville to Charleston, shorter route	609

In addition to these several roads, there will be in a short time a continuous line of road, part of it being the line of the East Tennessee and Georgia road, as far as Montgomery, Ala., which is distant from Knoxville 410 miles. From that point there is uninterrupted steamboat navigation the whole year to Mobile.

9.—We understand that the people are becoming impatient for the opening of the books for subscription to the New-Orleans and Baton Rouge Rail-road. Now that a most liberal charter has been obtained from the legislature to enable a company to connect the commercial metropolis with the capital of the State by rail-road, it behooves every good citizen to bestir himself, and see that the many advantages that must result to our beautiful little city from said connection be not lost from want of action. Let the commissioners come together at an early day, and appoint suitable persons to open the books at once. Let there be books opened at New-Orleans, on the coast and in this city, under the superintendence of active, energetic business men, and, our word for it, there will be stock enough subscribed to commence the work in less than thirty days.—*Baton Rouge Comet.*

10.—The subscriptions by the city and county of St. Louis to new rail-roads, amount to $2,400,000, viz:—

	City.	County.
Pacific Rail-road	$500,000	$200,000
Ohio and Miss. Rail-road	500,000	200,000
North Missouri "		500,000
Iron Mountain "		500,000
	$1,000,000	$1,400,000
	1,400,000	
Total city and county	$2,400,000	

Art. IX.—EDITORIAL MISCELLANY.

NEW-ORLEANS WORLD'S FAIR — SOUTHERN DIRECT TRADE — WOOD GAS — PACIFIC RAIL-ROAD MOVEMENT—TERRITORY AND POPULATION OF THE UNITED STATES—CALIFORNIA AND AUSTRALIA—TEHUANTEPEC COMPANY—LATE BOOKS—EDITOR'S NOTE, ETC., ETC.

1.—In New-Orleans a movement has been some time in progress for the institution of a *World's Fair*, after the plan of that in New-York. The matter has been placed in the hands of appropriate committees, some of whom are men of zeal, and the public may expect some early results. No position in the South or West is better adapted than New-Orleans for such a fair; and the enterprise which she is beginning to exhibit in other respects, argues well for her success in this.

2.—We mentioned in another place a new, and, probably, large demand for cotton, to be used in the manufacture of mattresses. Our North Carolina friends, not satisfied with turning their rosin to additional account in the production of oil, are actually manufacturing gas from pine wood. This will produce a great revolution, and give a value to our southern forests altogether incalculable. For the manufacture of this gas, the whole apparatus, including mains, gasometer, &c., costs but $13,900. This includes their transportation from Philadelphia, with, also, the pay and passage of workmen. By reference to Use's Chemical Dictionary, it will be found a ton of coal, or thereabouts, yields about 10,000 cubic feet of gas. This is after eight hours' distillation from the best selected coal. By actual experiment it has been found that a cord of wood will produce 93,000 cubical feet of gas. It will be perceived at once this renders wood-gas much cheaper. Besides, it is a well-ascertained fact that wood-oils, in the production of light, are as 7 to 3 in favor of ligneous oils over coal. One reason that they have been so little used is, that they require to be distilled from wood previous to use; but this difficulty, it is said, has been obviated by a simple and cheap apparatus, invented and patented by Dr. McConnell. This invention places the use of gas within the reach of all rural villages; and will render every one, who chooses to be so, independent of the gas companies, for by its means they can manufacture their own gas at a much cheaper rate than it can now be supplied by any company chartered within the United States. This gas has not the offensive smell of that produced by coal, and can be passed directly from the retort through the washer or condenser to the gasometer without further purification.

3.—The people of California are in earnest in their promotion of a great railroad which shall connect them with the Atlantic. We have the particulars of an enthusiastic meeting at San Diego, with some very able reports and resolutions which will be referred to next month. Our readers have heard of the proposition made by a gentleman of San Francisco, for the best treatise upon subjects relating to the road, to wit:

1st.—*The Great Pacific Railway, and the benefits which will arise from it.*
2d.—*The Trade of the Pacific and East Indies.*
3d.—*The Natural Resources of the State of California.*

The sum of $10,000 will be awarded to the work—chosen by a committee as the best submitted—upon these three topics. One half that amount ($5,000) for the best treatment of the first-named topic, alone or distinct from the others. One half that amount ($2,500) for the best treatment of the second topic, and the same amount ($2,500) for the third.

Manuscripts forwarded, in competition, are to be addressed to "S. P. Andrews, Esq., New-York City," prior to the first day of November, 1853. Other communications, concerning the proposal, to the "Editor of the *Evening Journal*, (R. K. Brown,) San Francisco."

4.—Mr. Darby, of Washington City, in a recent publication, presents the following summary views of the territorial progress of our country:

1. The original territory of the United States, according to the treaty of 1783, gave us, as the amount of ceded limits, 1,000,000 square miles, 640,000,000 of acres.

2. The extent of square miles added to the territory of the United States, by the treaty with France in 1803, was 1,000,000.

3. By the session of Florida to the United States in 1812, an acquisition was made of 13,000.

4. The additions of Texas, New Mexico and California, are estimated at 1,400,000 square miles.

The recapitulation is thus in square miles:

United States, original	1,000,000
Louisiana	1,000,000
Florida	13,000
Texas, New Mexico and California	1,400,000
Amount of territory of the United States	3,413,000

5.—Upon the assumption that the population of the United States increases one-third decennially, the following tables have been made. The assumption is very near the mark, as will be seen by the following:

1850. Assumed population on the principle of one-third increase in the ten years........................23,191,918
1850. Actual population at the time........................22,881,486

This shows an excess over the assumed ratio of one-third increase every ten years, in a period of sixty years, of only 123,569. The analysis from 1790 to 1850 presents the following results:

Census, 1790	3,929,827	Census, 1820	9,638,191
One-third	1,300,942	One-third	3,212,730
	5,239,769		12,850,912
Census, 1800	5,305 941	Census, 1830	12,866,020
One-third	1,768.980	One-third	4,288,671
	7,074,921		17,154,691
Census, 1810	7,239,814	Census, 1840	17,063,358
One-third	2,413,271	One-third	5,694.453
	9,651,082	1850	22,757,811

The comparison, carried forward for one hundred years, would produce the following on the one-third basis:

1850	population	22.881,480	1910	population	128,533,474
1860	"	30,508,640	1920	"	171,355,000
1870	"	40,678,186	1930	"	228,473,000
1880	"	54,227,583	1940	"	304,630,000
1890	"	72,300,000	1950	"	405,973,000
1900	"	96,480,000			

The surface of the United States, as now existing, comprises about 3,000,000 of square miles of territory, and hence the assumed population for 1950 will give a fraction over 135 persons to the square mile, somewhat over half as many as the State of Massachusetts.

6.—The following rates of wages in Australia are taken from the *London Times* and the *Observer* of the 16th December last, and are confirmed by recent private intelligence from Sydney and Melbourne. We have rendered the pounds sterling into dollars.

WAGES IN AUSTRALIA.	WAGES IN CALIFORNIA.
Man and wife for farm work, $300 per annum and rations.	Man and wife for farm work, $1,000 per annum and board.
Shepherds and farm servants, $160 to $250 per annum and rations.	Shepherds and farm servants, $600 per annum and board.
House servants and waiters, $200 to $250 per annum.	House servants and waiters, $600 to $900 per annum.
Teamsters and bullock drivers, $15 to $18 per week.	Teamsters and bullock drivers, $25 to $30 per week.
Seamen for coasting vessels, $25 to $40 per month.	Seamen for coasting vessels, $15 to $55 per month.
Carpenters and machinists, $2½ to $3 per day.	Carpenters and machinists, $5 to $7 per day.
Blacksmiths, $350 per annum and rations.	Blacksmiths, $1,000 to $1,500 per annum and board.
Bricklayers and masons, $3 to $4 per day.	Bricklayers and masons, $6 to $9 per day.
Compositors, 42 cents per thousand; pressmen, $3 to $3½ per day.	Compositors, $1 75 per thousand; pressmen, $10 to $12 per day.
Female cooks, $150 to 180 per annum.	Female cooks, $600 to $800 per annum.
Housemaids, $100 to $130 per annum.	Housemaids, $500 to $700 per annum.
Laundresses, $100 to $130 per annum.	Laundresses, $600 to $900 per annum.
Nursemaids, $75 to $100 per annum.	Nursemaids, $400 to $600 per annum.

The above were the current published rates of wages in Melbourne, one year and eight months after gold was first discovered, and during the very month that Australia boasted of having actually shipped five millions of dollars worth of dust.

7.—We learn from Mr. Baylor, editor of the *Cotton Plant*, that an agent of a wealthy European company will before long make a tour in this country. His tour is to enable him, as the confidential friend and agent of the European Company, to inform them of the condition of the cotton-growers, and their disposition to participate in any general movement such as is contemplated by *direct trade*. The object will also be to give certain assurances to the planters of the determination of European capital to co-operate in the formation of a continental depot of cotton. This tour must prove interesting, not only on account of the opportunity it will give intelligent European society to judge of our southern friends, but also in regard to a change in the destination of that portion of the cotton crop which now goes circuitously to the manufacturers of the Continent.

8.—We perceive that a charter has been granted in Louisiana to a company, under the grant from Mexico to Mr. Sloo, for a rail-road across the Tehuantepec. There are to be 100,000 shares of $100—$10,000,000, of which Mr. Sloo is to receive $5,000,000 for his grant. As there are now "two Richmonds in the field," we presume the affair is becoming more and more complicated. Hargous or Sloo—which of them to chose and to stand by? We have published the grants to both parties, and will, in our next, refer more fully to the new company.

9.—We acknowledge the receipt of the following works since our last:—
Carlotina and the Jesuits; or, a Night with the Jesuits at Rome. New-York: John S. Taylor; Steele, New-Orleans.

Cathay, a Cruise in the China Seas. By W. Hastings Macaulay. Putnam, New-York; Norman, New-Orleans

Adventures in New-York, Marco Paul. By Jacob Abbott. (Harpers.)

Last Leaves on American History, embracing a separate History of California. By Emma Willard New-Orleans: J. B. Steel.

The Task, Table-Talk and other Poems of Wm. Cowper. By James Robert Boyd. New-Orleans: J. B. Steel.

Poems of T. Buchanan Read. Philadelphia: A. Hart. 1853.

John Randolph, of Roanoke, and other Sketches of Character, including Wm. Wirt, together with Tales of Real Life. By F. W. Thomas, author of Clinton Bradshaw. Philadelphia: A. Hart.

Physical Geography. By Mary Somerville. A new American, from the third and revised London edition. With Notes and a Glossary. By W. S. W. Ruschenberger, M. D Philadelphia: Blanchard & Lea. 1853.

We are indebted to Frank Taylor, of Washington, D. C., for the three last works, and cordially recommend them to our readers.

10.—Owing to some miscarriage, the corrected proof-sheets of the article on Free Trade, in our last Number, did not arrive in time; and it was, unfortunately, issued with many errata. Attentive readers will have readily discovered many of them, but we have considered it due to the author of this article to make this public statement. The end of the article ought to have been printed as a note.

The present residence of the Editor being at Washington City, letters in relation to the editorial of the Review may be addressed to him there; and also any letters relating to the general administration and conduct of the work, which will be promptly attended to.

The subscription and delivery office remains as before at New-Orleans, and all payments whatever will be noted on the cover.

The Editor will receive with kindness, notices from subscribers of inattention or neglect in any of the numerous offices or agencies of the Review.

NEW SERIES OF THE REVIEW.

We shall be able to supply orders received before the first of September for a new series of the Review for the years 1850, 1851, 1852, and for the first six months of 1853—seven volumes, handsomely bound in cloth, 650 to 700 pages each, (vols. 1-7) The price for a set will be $15, and they will be delivered free of postage. We have just 100 sets, and when it is desired, will have future volumes bound uniformly with them.

A few sets of the Industrial Resources still remain.

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Art. I.—GROWTH, TRADE, AND MANUFACTURE OF COTTON.

No. I.

It is a just remark of a modern writer, who has veiled his name in the mantle of his modesty, "that of the *true history* of mankind, only a few chapters have yet been written."

The physical wants of man in a civilized state, exceed altogether his individual powers of supply. Hence he is of necessity a *social being;* and his wants and his desires are, in a great measure, dependent for their attainment upon his fellow men, and inseparably connected with correlative duties to them. *This is human destiny.* It would seem, therefore, that whatever tends to the advancement of our race and the amelioration of its condition, is a part of "the true history of mankind," and ought to be written; and that those persons who, by their labors and exertions, whether mental or physical, have done the most to that end, are justly entitled to the highest niche in the temple of human glory. Yet how different has been the experience of past ages! While the deeds of the warrior, who rode forth to pillage and destroy, have been blazoned to the world in history, and monument, and song, the *true heroes* in the cause of humanity, the *patient inventors,* the *great captains of industry,* and promoters of the *arts of peace,* together with their labors, have been too often suffered by the historian to sink into oblivion. Fortunately for our race, a new era has dawned upon us. Men have begun to perceive that the arts of peace are the true sources of national strength, as well as of individual prosperity; that the proper duty of the historian and poet is to celebrate and record the deeds of those who have done the most to increase human comfort and happiness, rather than of those who, by battle and conquest, have been instrumental in destroying both; *that he who invents a machine which lessens human toil, and increases human comfort, is a greater benefactor to his race* than he who simply inherits a crown, or receives the applause of the world for splendid military achievements. In the development of the uses to which some of the simple vegetable productions of our own country are now applied, new sources of invention, of beauty and art, of profitable industry, of individual comfort, of private and national wealth, have opened themselves to our view, altogether astonishing in their magnitude and effects upon the commerce and happiness of the world.

Of these, perhaps, none afford a better illustration of the importance and magnitude of the blessings which God has conferred upon us through his vegetable kingdom, than the simple COTTON PLANT.

The early history of the cultivation and manufacture of cotton, is involved in much obscurity. The shrub or plant which produces it, of which there are several varieties, has been found growing spontaneously, or successfully cultivated, in nearly all the countries of the globe, situated between 40 degrees north, and about 33 degrees south latitude. In "the Crimea" it is grown as far north as 43 degrees of latitude, and under the torrid zone in South America, on mountains 4,000 feet elevation above the level of the sea.

It is said to be mentioned but four or five times by the early Greek and Latin authors, and is not alluded to in the Bible. The first mention of it in history is by Herodotus, in his description of the usages of the people of India. Among other remarkable things which he describes, he relates, "that the people of that country possess a kind of plant, which, instead of fruit, produces wool, of a finer and better quality than that of sheep, and that of this they make their clothes."

The cultivation and manufacture of cotton began in India long before the date of authentic history. At the commencement of the Christian era, they had extended to Persia and Egypt.* It had also begun to be used in Rome. As early as

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* In the time of Pliny, A. D. 50, the cotton plant had come to be extensively known. He often mentions it. In his Natural History the following passage occurs:—" In Upper Egypt, towards Arabia, there grows a shrub which some call gossypium, and others Xylon, from which the fabrics are made which we call Xylena. It is small, and bears a fruit resembling a filbert, within which is a downy wool that is spun into thread. There is nothing to be compared to these stuffs for whiteness and softness; beautiful robes are made from them for the priests of the land."

Mr. John Chapman, in his work recently published on the " Cotton and Commerce of India," says:—" The cotton fibre is the fruit of plants of different forms and magnitudes, from an annual creeper to a tree twenty feet in height; only the kinds produced by annual, triennial, and perennial bushes are used for woven manufactures * * * * The kind commonly, and perhaps from ancient times, produced and used in India, differs from the sorts obtained in other countries, and seems, even from the days of Arkwright, to have been held in inferior estimation in England, although its substantial good qualities give it a decided preference with the natives who use it "

Not many years since, one traveller (Mr. John Duncan), found a variety of the

63 years before Christ, Lentullus made use of cotton cloth as an awning for the theatre; and frequent mention is made of it by the writers of that and later periods.

The commercial activity of the early followers of Mahomet widely spread its use in their day.* Science and every kind of industry were carried to greater perfection in Spain, under the dominion of the Moors, than they attained at that period in any other part of Europe; and the manufacture of cotton into various and beautiful fabrics flourished in that country under their dominion; yet the mutual repugnance existing between the Mahometans and Christians, was doubtless the cause that prevented its spreading to other parts of Europe.

But when, after years of bloody warfare, Granada, the last stronghold of Moslemism, fell before Ferdinand, science also fell, the arts were lost, and "Woe is me, Alhama," was truly a more significant sigh than the heart-broken words express. Barcelona, however, continued the manufacture. In 1560, fustians were made in great quantities at Bruges and Ghent. Antwerp, at this period, imported fustians from Venice, and also many finer qualities of fustians and dimities from Milan. In Italy, Germany and Flanders, the manufacture had but a lingering and ignoble existence; and, indeed, it was not then carried to any degree of perfection anywhere in Europe.

Paper was first made of cotton by the Chinese, and a knowledge of this art was brought from them into Europe by the Saracens. Although the plant had been long known in China, yet cotton cloth was rarely manufactured by that people until after the conquest of their country by the Tartars; but as early as 1368, its use prevailed throughout that empire.

The precise date when this manufacture commenced in England, is not known. From an entry in the books of Bolton Abbey, 1298, it is stated that "cotton was used for candlewicks;" but no advance was probably made during the three succeeding centuries of war, ignorance, and confusion.

In an old work entitled the "Process of English Policy," the author says, "Genoa resorts to England in her huge ships,

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plant in Abomey, Africa, which produced a very superior cotton. The stocks of the plants were fourteen feet high, with large branching heads.

E. H. Hopkins, Esq., our present consul for Paraguay, informs us, that upon the alluvial banks of the large streams of that country, cotton of superior quality is grown, and that in the forests are found two kinds of wild cotton, admirably adapted to the manufacture of paper.

* It is stated upon good authority, that Omar, the immediate successor of Mahomet, preached in a tattered gown of *cotton*, torn in twelve places. Another evidence that it was common in Mahometan countries, may be seen in the observation of two Arabian travellers, who visited China in the ninth century. They remarked, "that the Chinese chiefly used silk stuffs for their garments, instead of cotton, *as the Arabs did.*"

It is also stated by William de Rubruquis, who was ambassador from the French called carracks, bringing many commodities, as silk, paper, wool, oil, *cotton*, &c." This was near the close of the fifteenth century.

England, from that period, had her cotton from Cyprus, Smyrna, and other countries bordering on the Mediterranean, until the establishment of her great East India and American trade.

Woollen goods had long been manufactured in England, when, in 1585, on the capture of Antwerp by the Duke of Parma, large numbers of Protestant artisans fled from the cities of the Spanish Netherlands, and took refuge in England, bringing with them the art of manufacturing cotton: some of them settled in Manchester, and were encouraged by the warden and fellows of the college of that town.*

Down to the year 1530, no essential improvement had been made in the machinery for spinning and weaving, beyond the ancient distaff and spindle, and primitive loom. In this year, the common one-thread spinning-wheel was invented at Brunswick, in Germany. The "weaver's," or "Dutch loom," was brought into use in London, from Holland, about the year 1676. It was similar in construction to our common hand-loom. We have no record of the invention of the primitive loom, nor by whom it was brought to this stage of improvement.

Columbus found cotton growing wild and in great abundance in Hispaniola, and other West India islands. And the splendid stuffs sent by Cortez to Spain, after his conquest of Mexico, is satisfactory evidence of the high state of perfection to which the Mexicans had carried the art of manufacturing. Yet they had made no advance in machinery beyond the distaff, spindle, and primitive loom.†

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king to several oriental courts in 1252, that cottons were then articles both of trade and costume in the Crimea and southern Russia; being brought from Turkistan, and that they were worn to some extent in the provinces of Tartary.

In the fourteenth century the manufacture of cotton had been carried to great perfection in Granada. Abu Alkhatib, the Spanish Arabic historian of that kingdom, affirms that cotton garments made there were said to be far superior in delicacy and beauty to those of Assyria.

* "At so late a period as the year 1331, weaving was so little understood in England, that the arrival of two weavers from Brabant is recorded as among the important events of the time. But it was the religious persecutions of the Duke of Alva which first gave importance to the manufacture of cloth in England, by driving crowds of Flemish weavers to seek a home in that country. Louis the Fourteenth, by his revocation of the edict of Nantz, in 1686, caused the expulsion from France into England, of about 50,000 of the best French manufacturers."—URE.

† "There is no doubt that in Greece, Troy, Tyre and Sidon, the arts of weaving, dying and embroidery, had been carried to a high degree of perfection at the time of the Trojan war.

"The Indian loom was probably the same four thousand years ago as now. It was simple and rude in its construction. The mode of operating the ancient loom

In 1641, a little English work, called the "Treasure of Traffic," notices the new art, as if it had then become well established at Manchester; supplying not only the market at home, but also those of the Levant, in exchange for the raw material. Still, *linen* yarn was used for the warp of fustians, and nearly all other cotton goods, down to the year 1773. Rudeness of machinery prevented the production of fine yarns or fine fabrics. Dimities were woven, but no calicoes were attempted.

Towards the close of the seventeenth century, a great increase of the manufactures and trade of England took place.

During the period of almost uninterrupted peace, between 1720 and 1740, the commercial towns, and especially Manchester, made rapid strides in wealth, population, and manufacturing operations; the grand staple being cotton in all its varieties.

At this time the demand for yarn exceeded the supply, and the weaver was continually pressing on the spinner. The Manchester merchants began to give out linen warps and raw cotton to the weavers, receiving them back in cloth, paying for the carding, roving, spinning and weaving. When finished, the cloth was dyed by the merchants, and then carried by them to the principal towns on packhorses, to be retailed to shopkeepers along their route.

The great expense necessarily incurred in converting cotton into yarn on the single thread wheel, and the small quantity that could be produced in a given time, formed a great obstacle to the increase of the new manufacture.

differed among different nations. Herodotus says:—'The Egyptians shoot the woof beneath, and other nations above.' This proves that they operated their looms differently, but I do not clearly understand his meaning. The Hindoo loom is thus described by modern writers:—'It consists merely of two bamboo rollers, one for the warp and the other for the web, and a pair of geer. The shuttle performs the double office of shuttle and lathe, and for this purpose, is made like a large netting-needle, generally of a length somewhat exceeding the breadth of the piece. This apparatus the weaver carries to a tree, under which he digs a hole large enough to contain his legs and the lower part of the geer. He then stretches his warp by fastening his bamboo rollers at a due distance from each other on the turf by wooden pins. The balances of the geer he fastens to some convenient branch of the tree over his head; two loops underneath the geer, in which he inserts his great toes, serve instead of treadles, and his long shuttle draws the weft through the warp, and afterwards strikes it up close to the web. The reed used by them is like our own, and well made."

In the old pictures of the Aztec machinery that have been discovered, neither the shuttle nor distaff have been found represented, and these were probably not attained by that people. According to the accounts of modern travelers, the Aztec loom was a very rude instrument, consisting merely of four stakes driven into the ground, upon which the web was stretched; no shuttle was employed by them, but in place of it a long wooden needle; no attempts, it would seem, were made by them to render their implements more efficient. The modern Peruvians spin without the distaff, and their loom is like the one just described. Every piece of cloth was woven the precise width wanted far a garment. Specimens of the cloth have been found in their tombs.

In 1738, Mr. John Kay, a native of Bury, in Lancashire, and a resident then of Colchester, invented the "Fly Shuttle," which is still in use. By this new invention, the shuttle was driven across the warp and back, and back again, without being thrown by the workman's hands. By this means the weaver was enabled to make nearly double the quantity of cloth, and, besides, *one man could weave the widest web.*

About this time Mr. John Wyatt, of Litchfield or Birmingham, invented a machine for spinning cotton *by rollers;* and two factories were established employing his machinery, one at Birmingham, and the other at Northampton. Both the undertakings, however, failed; and the machines were long since lost, no models of them remaining now in existence.

The patent for this machine was taken out in 1738, in the name of Lewis Paul, a Swede, who was connected with Wyatt in business.

Paul took out another patent for spinning by rollers in 1753. It is highly probable the machine was the same as the machine of 1738, but included a supposed improvement in the mode of applying the sliver of cotton to the rollers, consequent upon his improvement in the carding process hereafter to be described.

No other attempts to spin by machinery are known to have been made till 1764.

The fly shuttle also of Mr. Kay was not brought into general use until 1760; when his son Robert invented the *drop box,* which enabled the weaver to use any one of three shuttles containing different colors, without removing and replacing them in the lathe. These inventions excited the envy and hatred of the ignorant weavers of Lancashire, and were so maliciously opposed by them, that Mr. Kay left the country, taking up his residence in Paris.

The numerous and remarkable inventions which were made soon after this period are differently recorded by different authors. Having examined many conflicting accounts, I believe the following to be their correct history:

The first spinning machine produced, after the failure of Wyatt's, was contrived by Thomas Highs, assisted by a Mr. Kay, clockmaker of Leigh, in Lancashire, and named, for his daughter Jane, "*The Spinning Jenny.*" It was, however, an imperfect machine, wanting many parts essential to its success. Highs afterwards produced a double jenny with some new apparatus, for which he received a present of 200 guineas from the manufacturers of Manchester. But it does not rest on any conclusive evidence that he was an original inventor. He continued to make jennies mostly on his own plan, till he was disabled by a stroke of palsy about 1790.

The great demand for yarn, which the one-thread wheel could not supply, made many persons endeavor to contrive a substitute for the imperfect hand machine.

A "Society for the Encouragement of Arts, Manufactures, and Commerce," was established at Manchester, England, in 1754. In the nine years succeeding, six model machines had been presented for approbation, and the society had distributed £544 12s. in premiums for improving several machines used in manufactures, viz., the comb-pot, cards for wool and cotton, stocking-frame, loom, machines for winding and doubling, and *spinning wheels.*

In the transactions of the Society, in 1783, it it said by the compiler: "From the best information hitherto obtained, it appears that about the year 1764, a poor man of the name of Hargreaves, employed in the cotton manufactory near Blackburn, in Lancashire, first made a machine in that county, which spun eleven threads, and that in the year 1770 he obtained a patent for his invention. The construction of this kind of machine, called a Spinning Jenny, has since been much improved, and is now at so high a degree of perfection, that one woman is thereby enabled with ease to spin a hundred threads of cotton at a time." James Hargreaves, a weaver of Standhill, near Blackburn, was the author of the above invention, the date of which has however been supposed 1767. This invention of Hargreaves showed high *mechanical genius;* and, differing completely from any machines that had been produced before, *there can be no doubt of its originality.*

The inventor is said to have received his first idea of it from observing that a one-thread wheel, having been overturned upon the floor, both the wheel and spindle continued to revolve. Hence, it occurred to his mind, that if a number of spindles were placed upright and side by side, several threads might be spun at once.

This invention of Hargreaves, thus suggested to his mind by an awkward accident, was the first efficient advance from the common one-thread spinning-wheel, and may justly be regarded as the prototype of all the wonderful improvements in the art of spinning, which have since been made. This machine he first kept as secret as possible, confining it solely to the yarn which his family spun for his own weaving. At length it became known, and the spinners raised a cry against it, alleging it would throw multitudes out of employment. A mob broke into Hargreaves' house and destroyed the machine; not only this, but the persecution he suffered, and the danger in which he was placed, obliged him to leave his native county, as the inventor of the "fly shuttle" had been compelled to do before him. He retired to Nottingham in 1768, where, in partnership with Mr. Thomas James, a joiner, he erected a small mill. Before he left Lancashire, he had made a few jennies for sale; but although the manufacturers and weavers fully appreciated and encouraged their use, a desperate effort was made by a mob, in 1779, to put down the machine. Not only the jennies, but all the machines turned by water or horses, were destroyed for several miles around Blackburn; those jennies only were spared which contained but twenty spindles, these being admitted by the mob to be useful. Hargreaves died at Nottingham, in 1778, having maintained his family in comfort by the fruits of his invention.

The inventions and improvements we have described, were, however, but the first dawnings of a new era in the history of mechanical contrivances. The idea of a complete system of manufacturing with the aid of labor-saving machinery, had not yet been conceived by the mind of man. It was reserved for Richard Arkwright to introduce and establish a system which has placed England in wealth and commercial greatness at the head of the nations,—*which has materially affected the destinies of our own country, and changed the commerce of the world.*

Richard Arkwright was one of those great characters whom nature seems to have destined, by the endowment of superior powers, to be the benefactor of their fellow-men. He was born at Preston, in Lancashire, the 23d of December, 1732, of poor parents; being the youngest of thirteen children, his parents could only afford to give him an education of the humblest kind, and he was scarcely able to write. He was brought up to the trade of a barber at Kirkham and Preston, and established himself in that business at Bolton, in the year 1760. Having discovered, or become possessed of a chemical process for dying human hair, which in that day was of considerable value, he travelled about collecting hair, and again disposing of it when dyed.

In 1761 he married a wife from Leigh; and the connections he thus formed in that town are supposed to have afterwards made him acquainted with High's experiments for making spinning machines. He manifested a strong predilection for mechanics, which he is stated to have followed with so much perseverance as to have neglected his business and injured his circumstances. His natural disposition was ardent, enterprising, and stubbornly persevering. In 1767, being then 35 years of age, he fell in with "Kay, the clockmaker," at Warrington, whom he employed in relation to some of his mechanical experiments; and it is said he was then endeavoring to produce a perpetual motion. The result of this acquaintance was, that Arkwright devoted himself to a more useful and practicable scheme, and having engaged Kay to work for him in those details which he was not himself skilled in, *he began the construc-*

tion of his spinning machine. He had many difficulties to contend with; Kay was unable to make all the machinery required; but Mr. Peter Atherton lent Kay a smith and watch-tool maker, to make the heavier part of the machine, and Kay undertook the clockmaker's part of it, and to instruct the workmen. *Thus was Arkwright's first spinning-frame made.*

Still poverty did not allow him to prosecute his invention; and he repaired to his native place, where he interested a friend, Mr. Smalley, in his behalf; and his machine was fitted up in the parlor of the house belonging to the "Free Grammar School," which was lent by the head master to Mr. Smalley for the purpose.

Riots had taken place in the neighborhood of Blackburn on the invention of Hargreaves' spinning jenny, as before noticed; and Arkwright, fearing similar outrages against his machine, left Preston, accompanied by Mr. Smalley and Kay, and went to Nottingham.

They first applied for pecuniary aid to Messrs. Wright, bankers, but by them they were referred to Mr. Need, who, with his partner, Mr. Strutt, the improver of the stocking-frame, joined Arkwright in partnership. *The machine was made practicable; and in 1769 he took out a patent,* describing himself, in his application for it, as Richard Arkwright, *Clockmaker.*

He and his partners erected a mill at Nottingham, which was driven by horses; but this mode of turning the machinery being found too expensive, they built another mill at Cromford, in Derbyshire, on a much larger scale, which was turned by a water wheel, and hence the spinning machine was called the "*Water Frame.*"

By the two important inventions, of which we have traced the history, the cotton manufacture was freed from those obstacles which had hitherto retarded it. The yarn turned off by the new machines was in greater quantity and superior quality; and the hard, firm thread spun by the "*water frame*" being found suitable for warps, linen yarn was abandoned for that purpose, *and goods were, for the first time in England, woven wholly of cotton.* More delicate fabrics were also introduced—especially calicoes, in imitation of the Indian. The jenny was peculiarly adapted for spinning filling, so the two machines aided each other.

Arkwright had to encounter much animosity and uncertainty at the beginning of his career. It was not until upwards of five years had elapsed after obtaining his patent, and more than sixty thousand dollars had been expended in machinery and buildings, that any profit accrued to himself and partners.

The Lancashire manufacturers refused to buy his yarns, and he and his partners found themselves encumbered with a heavy and valuable stock. They were driven to attempt the manufacture of this for hemselves, first in stockings, which succeeded; and then in caloes, which succeeded also. Another still more formidable difficulty arose; the orders for goods which they had received being considerable, were unexpectedly countermanded; the officers of the excise refusing to let them pass at the usual duty of 3d. per yard, insisting on the additional duty of 3d. per yard as being calicoes, though manufactured in England.

By this unforeseen obstruction a very considerable stock of calicoes accumulated. The proprietors, therefore, had no resource but to ask relief of the Legislature; which, after much money expended, and against a strong opposition of the manufacturers in Lancashire, they obtained.

This was the first Legislative acknowledgment of the existence of a British manufacture consisting wholly of cotton, and was in 1774.

The cotton machinery was still very imperfect, especially in the preparation; and the process of *carding* was the next subject for improvement. This was done with hand cards, which were made about 12 inches long, and five wide; the cotton being spread upon one of the cards, it was repeatedly combed with the other till all the fibres were laid straight, when it was stripped off the card in a fleecy roll, ready for the rover. The first improvement was in making one of the two cards a fixture, and increasing its size, enabling one workman to do double the quantity of work; and this was rendered still more easy by suspending the movable card by a pulley from the ceiling, with a weight to balance it, so that the workman had only to move the card without sustaining its weight. These "stock cards," as they were called, had been used in the woollen manufacture, *but they were applied to cotton* by Hargreaves, in 1760. The grand improvement in carding (as in fact in all other machinery) was the application of *rotary motion;* and this we owe to Lewis Paul, before mentioned, who took out a patent for his machine in 1748. This invention was admirable, but it had defects; the cotton was put on and taken off by hand, requiring the stoppage of the machine; and the perpetual carding was also done by the hand, joining short lengths together. These defects were remedied by a *feeder*, which was invented by John Lees, of Manchester, in 1772; and a continuous fleece was produced by the contrivance of Messrs. Wood and Pilkington.

In 1775, also, Arkwright took out a patent for a carding machine containing many improvements; the patent also included machines for drawing and roving. Cylinder cards were invented about 1762, and were first used by Robert Peel, ancestor of the late distinguished prime minister of England. Carding was not perfected, however, until 1775, the date of Arkwright's patent. The machines just mentioned as patented by

Arkwright are very important; and good yarn could not be spun by machinery without them. The machines have been greatly improved since, and some others introduced; but Arkwright was the first to introduce the *drawing process*, and to apply the spinning rollers to the purpose of *roving, and very great merit belongs to him on that account.*

But there are three machines we have not mentioned, which are used previous to the operation of carding, equally useful with the important inventions we have described, in forming a complete series of machinery adapted to the manufacture of cotton. From the very hard pressure to which cotton is subjected in packing, it is in matted lumps, mixed with more or less of dirt, leaf, &c. The first process to remedy this is by means of a machine called a "Willow." This name is derived from a machine which had been formerly used in Normandy for cleaning cotton and probably sheep's wool. It was a cylindrical cage made of *willows*, with a rotary axis and cross arms. The machine used now is entirely different, but it retains the name. After passing through this machine, the cotton was taken to what was then called the *scutching machine*, in which it was beaten by metallic blades revolving on an axis with great rapidity. This machine was introduced into Manchester about 1808. Before the invention of it, the cotton was opened and cleaned by being placed upon cords stretched on a wooden frame, and then beaten by women with smooth switches. The third machine is the spreading or lapping machine, constructed and brought into use by Messrs. Arkwright & Strutt.

They had thus perfected a *complete series of machines*, which were capable, at a small cost and without *the aid of human strength*, (except carrying the material from one machine to another,) of performing all the operations which were requisite and necessary for converting the "*Vegetable Wool*," which excited so much the admiration of the "*Venerable Father of History*," into yarns ready for the weaver's use. *These inventions commenced with Wyatt and Paul in* 1733, *and were the joint results of many profound minds directed to the same object; but the merit of combining them all to form a perfect whole, belongs to* Richard Arkwright, the poor barber of Preston.

When this admirable series of machines became known, Arkwright's frame resounded in all quarters, and his machines were eagerly sought and used. The consequence was, an unlimited supply of yarn to the weaver, cotton warps at a lower price than linen, cotton fabrics at very reduced prices, and consequently a great demand, *and high wages to the weavers;* spinning mills were erected upon a large scale by Arkwright and others, *and a mighty impulse was given to the cotton manufacture.*

The factory system in England, as applied to cotton, takes its rise *from this period.*[*] Hitherto, the various operations being performed separately, had been carried on entirely in the houses of the workmen, or adjacent workshops. But the machines of Arkwright required more space than the dwellings of the workmen could afford, and more power than could be given by the human arm; their weight also was great. These circumstances, added to the consideration of waste and the necessity for water power, (*the only motor then known,*) led to the erection of mills, in which every separate process might be carried on without the waste and trouble of moving the material from house to house.

Meanwhile, Arkwright's success and the wealth that rapidly flowed in upon him, roused the jealousy of other manufacturers, and several persons set up machines similar to his without his license, on the plea that he was not really the author of these inventions. To vindicate his claim he instituted actions, which were defended by an association of Lancashire manufacturers. Only one action came to trial, and a verdict was given for the defendant, thus setting aside his patent. In another attempt to establish his second patent, Arkwright gained a verdict. But the Lancashire manufacturers obtained a writ from the Lord Chancellor to try *the validity of the patent.* The cause was ably argued, models exhibited, and numerous witnesses examined; *a strong case was made out against him, and the patent was set aside. Thus were his machines thrown open to the public, and an astonishing extension of the manufacture immediately ensued.*

It would consume too much time to follow the personal history of *this extraordinary man;* but his life is well worth studying for the example which it affords of unwearied ardor and industry, even after fortune had poured her golden store so amply upon him. He endeavored at fifty years of age to remedy the defects of his early education; and his economy of time was a marked feature in his character to the last moment.

In 1786 he was appointed high sheriff of Derbyshire, and soon after received the honor of knighthood from George the Third. He died at Cromford on the 3d of August, 1792, in the sixtieth year of his age. He left an immense estate, and his descendants are now among the wealthiest of the commoners of England.

But Hargreaves' and Arkwright's machines were not adapted to the finer qualities of yarn. This defect was remedied by the invention of another machine, which was named the *Mule*, from its combining the principles of Arkwright's water frame and Hargreaves' jenny. This admirable invention, *which has entirely superseded the jenny*, and, to some extent, the water frame, was contrived by Samuel Crompton, a weaver, of respectable character and moderate circumstances, living at "Hall-in-the-Wood," near Bolton. He was but 21 years of age when he commenced his undertaking, and was five years in bringing it to maturity, which was accomplished in 1779. In his account of his invention, he said, "he had no other end in view than having good yarn to weave." The unambitious man took out no patent, "desiring merely to enjoy," what he termed, "his little invention, in his own garret." The very superior quality of his yarn, however, raised public curiosity as to the method by which it was produced, and persons came to him from all quarters to inquire respecting it.

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[*] "From Homer we learn that embroidery and tapistry were prominent arts with the Thebans, that poet deriving many of his pictures of domestic life from the paintings which have been found to ornament their palaces. Thus, it is evident that some of the proudest attainments of art in our own day, date their origin from a period coeval at least with the Iliad. Again, we find that the use of the distaff and spindle, referred to in the Sacred Scriptures, was almost as well understood in Egypt as it now is in India; while the *factory system*, so far from being a *modern invention*, was in full operation, and conducted under patrician influence some three thousand years ago."—[*Pastoral Life and Manufactures of the Ancients.*]

Thus the machine became known, and was turned to advantage by more energetic manufacturers, while the modest inventor received no other recompense than the very inadequate one of £5,000, granted him by parliament in 1812. The first mule made by Crompton was rude and heavy; but an ingenious mechanic, Henry Stones, of Horwich, who had doubtless seen Arkwright's machine, constructed a mule in a workmanlike manner, making the rollers of metal, and applying clock-work to move them; and adapting it to three times the number of spindles Crompton had used. Other persons made other improvements; and, in 1790, *the mule was first turned by water power, by Mr. Kelly, of Lanark Mills.*

The superiorquality of yarn produced by the mule created a great demand for laborers to operate it, and consequently a much higher rate of wages than was paid to artisans in general. This led to frequent combinations for higher wages on the part of workmen who were capable of operating the machines, which naturally led to an anxious desire on the part of the proprietors of cotton mills, that some means should be devised to enable them to dispense with the labor of the spinners.

Various attempts, running through a period of twenty or twenty-five years, were made by different mechanicians. The only persons who succeeded beyond the purposes of experiment, were Messrs. Eaton, De Jough, Buchanan, Brewster, Roberts, and Knowles. But these were generally unsuccessful from defects in the adjustment of the machinery and various other causes. James Smith, of Scotland, invented a self-acting mule which operated successfully, and which was introduced and patented in this country, as we shall hereafter describe when we come to speak of the United States.

But the machine which has met with decided success is the "*self-acting mule*," invented by Mr. Roberts, of the firm of Sharp, Roberts & Co., of Manchester, which is now in extensive use in England, and has been introduced into the United States. Mr. Roberts took out his first patent in 1825; and a second, for a further improvement, in 1830. A description of this extraordinary and intricate machine cannot be given without diagrams. Many improvements have also been made in the different machines used by Arkwright, which it would take too much time to name; among others is the throstle-frame, the ring spinner, and Danforth's cap spinner, which have taken the place of Arkwright's water frame. This brings the invention of spinning machinery to about 1833; since which time *our own country has furnished more improvements than any other, and has imparted more than it has received.*

Such rapid progress in the spinning department of the cotton manufacture demanded a correspondent improvement in that of weaving. A loom, moved by water-power, had been contrived by M. De Gennes, in the 17th century, but it is not known to have come into use. About the middle of the 18th century, a swivel loom was invented by M. Vauconson; and, in 1765, a weaving factory, probably filled with these looms, was erected by Mr. Gartside, of Manchester; but no advantage was realized, as a man was required to superintend each loom.

In 1785, the Rev. *Dr. Edmund Cartwright* invented a power loom, which may be regarded as the parent of that now in use. His first attempt, by his own description, was an awkward affair. He says, "The warp was placed perpendicularly, the reed fell with at least four hundred pounds weight, and the springs which threw the shuttle were strong enough *to have thrown a Congreve rocket.*" It required the strength of two powerful men to work the machine at a slow rate, and only for a short time. He, however, made improvements, and took out another patent the first of August, 1787, but was unfortunate in a weaving factory, which he established for weaving with power looms. He, however, received £10,000 from parliament as a reward for his ingenuity.

After the failure of his first factory, another establishment, containing 500 looms, built at Manchester, was destroyed by an exasperated mob, in 1790, under the delusive idea that the introduction of weaving machines would do away with the demand for their labor, and destroy their means of subsistence. The invention, nevertheless, was improved by others, and surmounted all opposition. At the time of Cartwright's death, in 1824, it was stated that *power looms* had increased so rapidly in England, that they were then performing the labor of *two hundred thousand men.*

In 1794, a power loom was invented by Mr. Bell, of Glasgow, but it was abandoned. In 1796, Mr. Robert Miller, of Glasgow, also took out a patent for a machine of this nature, which was adopted in 1801 by John Monteith, of Glasgow, who fitted up a mill with 200 looms. It was several years, however, before the business was made to answer.

But it was not till Mr. Horrocks, of Stockport, in 1803, after a long career of costly experiments, introduced some very important modifications into the power loom, that it became effective; but, unfortunately omitting certain minutiæ in the construction, which interfered with its uniformity of performance, he did not receive the reward which was due to his talents and ingenuity. But his loom is essentially the one now in use. It was perfected by Messrs. Sharp & Roberts.

The great obstacle to the success of the power loom was, that it was necessary frequently to stop the machine in order to dress or size the warp as it unrolled from the beam. This difficulty was removed by the invention of a machine for dressing the warp before it was placed in the loom. This *beautiful and valuable* machine was invented by Messrs. Radcliffe & Ross, of Stockport, assisted by a workman of the name of Thomas Johnson. They spent two years in experimenting before the machine was produced. They obtained a patent for it in 1802. Passing over many valuable inventions for manufacturing cotton—not the least of which is the stocking-frame for weaving hosiery, invented by Wm. Lee, of Nottinghamshire, in 1589, and greatly improved by David Holt, and afterwards by that accomplished man, Jedediah Strutt, who first wove *ribbed* stockings, in 1756—and also the contrivances of machines for weaving lace, we will describe very briefly the improvements in bleaching, and the introduction of calico printing.

Bleaching, by the action of the sun and atmosphere, is the most ancient and still the common method in many countries. But this process is too slow to suit the modern demands of manufacturers. The bleaching process, as performed in the middle of the last century, occupied from six to eight months. "It consisted," says the "Encyclopædia Britannica," "in steeping the cloth in alkaline leys for several days, washing it clean, and spreading it on the grass for some weeks; this operation was repeated five or six times. The cloth was then steeped for some days in sour milk, washed clean, and dried. The processes were repeated, diminishing every time the strength of the akaline leys, till the cloth had acquired the requisite whiteness." In the last century the art of bleaching was so little understood in Great Britain, that nearly all the linens made in Scotland were sent to Holland to bleach. From this came the name of "Hollands," as applied to this species of British manufacture.

The first great improvement in bleaching in Great Britain was made about the middle of the last century. Dr. Home, of Edinburgh, introduced the use of water, acidulated with sulphuric acid, as more powerful than sour milk. By the quicker operation of this liquid, the souring of the cloth was effected in a few hours, instead of occupying days and weeks as formerly; and in the whole process so much time was saved as to reduce it from eight months to four.

A still greater improvement was the result of the discovery of chlorine or oxymuriatic acid. This powerful chemical agent was discovered by Scheele, a Swedish chemist, in 1774, who observed its property of destroying vegetable colors from its having bleached the cork of his phial. This fact became known to Bertholet, a French chemist, to whom the idea occurred of applying it to the bleaching of cloths; and, in 1785, having found by experiment that it answered the purpose, he made known *this great discovery.*

James Watt, the improver of the steam engine, learned from Bertholet, at Paris, the success of his experiment, and introduced it in England with success in 1786. Mr. Henry, of Manchester, also introduced an improvement in 1788, by the addition of lime, in order to overcome the noxious smell of the acid. But there were still some objections to the process. Mr. Tennant, of Glasgow, after much laborious investigation, discovered the method of making a saturated liquid of chloride of lime, and produced what is now known as "Tennant's Bleaching Powders,"—which was found to answer perfectly all the purposes of the bleacher,—and brought the article into common use. Every thing is now performed by machinery or the use of chemical agents, and the process of bleaching is reduced to a few days.

Art. II.—DUTCH COLONIAL EMPIRE.*

EAST INDIES—WEST INDIES—AFRICA.

I. East Indies.—Of the extent and population of the entire Dutch East Indies, no complete report has yet been made, and the official papers of the Colonial Minister do not even contain the names of the greater or lesser islands collectively on which the Dutch flag waves, or may justly do so. On the Papuan coast of New Guinea, a beginning was made in 1850, for setting up the marks of boundary with the Dutch arms. In the division of land of Java some changes were made, as, for example, a regency was erected for Pradjeka (residence Bezökie), and a subregency at Blitar (residence Kedirie). The population of Java and Madura was estimated at 9,570,023 souls, of which 16,172 were Europeans, 123,934 Chinese, 28,522 Arabians, 9,391,749 free natives, and 9,646 slaves. The population of Timor and the adjacent isles, is estimated at 2,272,750 souls.

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* Made up from the German of Otto Hubner.

On the 30th of December, the Dutch naval force in India consisted of 1 frigate, 2 corvettes, 1 brig, 7 schooner-brigs, 1 advice brig, 3 schooners, 10 steamships, 1 gunboat, and 1 schooner-brig on repair, manned by 1,885 Europeans and 510 natives. Besides these there were 5 India Government schooners, and 55 Dutch ones, manned by 15 Europeans and 1,229 natives. Of the land forces, accounts are wanting, except that in 1850 there arrived from Holland 670 officers and soldiers. Of the laws, it is mentioned that the Dutch book of criminal law is based on the Indian.

In consequence of the royal ordinance of 3d August, 1849, the number of ecclesiastics has been increased. Since 1850, the Protestant churches have 15 resident, and 2 travelling preachers, but the former are bound to engage, from time to time, in short itineracies. In and through the benevolent institutions of Java, in 1850, 1,139 Christians, and 873 others were assisted. The government has granted a support of 160,149 florins.

In respect to the medical profession, mention is made of the founding of a School of Midwives for the natives. By the citizen-physicians, 24,278 patients were treated in Java and Madura; in the other possessions, 5,535: of which, in the former case, 2,025, and in the latter, 163, died. Of the former, therefore, the deaths were as 1 to 34, and of the latter 1 to 13.6. In the residencies of Samarang, Tagal, Japara, Rembang, Madiven, and Padjitan, malignant epidemic fevers were prevalent, which carried off many persons. The population of Samarang was thus reduced from 404,080 to 323,095 souls. The excess of the deaths over births there was 37,456: of those leaving the country above those coming into it, 43,829. Inoculation was continually on the gain among the inland population. The raising the funds for schools, by the resolution of January 10, 1850, was only a government measure; new schools were erected, but the official report mentions nothing respecting the visitation of schools.

Science.—A journal of natural science for the Dutch East Indies, has been published since 1850. The catalogue of the Garden of Plants in Buitenzorg embraces 5,000 species, among which are named as new acquisitions, a *Rafflesia* (Rochussenia), the flower of which is 43 Dutch ells in circumference, and the fruit bearing vanilla, by the artificial fructification of the blossoms.

Finances.—At the end of the year 1850, there were in the public treasury 23,207,260 florins, in doits (coin) and in bills in circulation, 21,000,000 florins, of which 20,937,000 florins were deposited for safe keeping. In exchange upon the department of the colonies, there were exported in 1850, 5,403,000 florins. The Bank of Java had made a nett gain of 142,077 florins, and distributed therefrom to the stockholders two-thirds.

Post-Office.—In Java and Madura, in the year 1850, there were received and sent 304,582 letters, being 18,000 more than in 1849. The postage on printed matter in Java has been reduced one-half: the postage on ship-letters from Holland to 48 doits for a single letter. A regular transmission by steamships between Surabaya and Macasser is arranged, and others are in preparation.

From the coal mines of Borneo, 4,343 tons of coal have been obtained. Free labor has been gradually introduced, and everywhere great success, in place of that which is not free. The *Coffee* crop was very favorable, and produced to the government 976,725 piculs, which cost for shipping, on an average, fl.9,54, thus yielding an average in Holland, fl.33,93 gross=fl.25,14 nett. The planting of coffee on the northern coasts of Sumatra has been successful. The *Sugar* crop was very favorable; the government received 1,046,666 piculs, at the average cost of fl.9,88, which yielded in Holland fl.17,24 gross = fl.10,30 nett. From the *Indigo* crop the government received 614,767 Amsterdam pounds, at the average cost of fl.1,89, which gave in Holland fl.3,49 gross = fl.3,12 nett. Of *Tea*, the government received 825,021 Amsterdam pounds, at 78 doits, which yielded in Holland 75 cents gross, 44½ cents gross [? nett], so that this article was a loss. Further, the government received, *Cinnamon*, 133,036 pounds, at the average cost of 82½ doits per pound, and an average nett proceeds of 89½ cents; *Cochineal*, 139,774 pounds, at an average cost of 107 doits per pound, and average nett proceeds of fl.2,10 cents; *Tobacco*, 14,252 piculs; *Pepper*, 4,047 piculs, at the average cost of fl.13,58 cents. Rice was a failure in some parts of Java, in consequence of which there was a want of food, while on the contrary, in Padang there was a prosperous harvest. In Java, the extent of private landed property was increased about 16,000 on 1,622,238 acres, without including the forests of Soerakarta and Djokarta. Of cattle, &c., at the close of the year 1850, there were in Java, 1,425,252 buffaloes, 530,017 other cattle, 363,706 horses. The coasts of Padang were visited by 110 Dutch, 32 English, 1 French, 3 American, 2,575 Asiatic vessels; together, 2,721, with 20,652 cargoes.

II. WEST INDIES.—*Surinam*—Population at the close of 1850, 61,080, of whom 12,401 were Europeans and Creoles, 8,000

Bush-negroes, 1,000 Indians, and 39,679 slaves. Of the slaves, during the year, 258 were emancipated, 251 ran away, but 138 came back again.

In Nickerie the running away of slaves gave occasion to a law, of July 1, 1850, which fines the proprietors 10 florins, who do not give notice to the officers within 24 hours after the slave has run away. The Bush-negroes are divided into three tribes, Arakans, Saramanans, and Becon bush-negroes. It is expected that the Indians will soon die out, in consequence of the drunkenness to which they are addicted. The army consists of 31 officers and 569 soldiers. In the hospital of Paramaribo there were 581 military and 200 persons of the civil service, of both of whom 781 patients were attended upon, of whom 27 died. The naval force consists of 2 corvettes, 4 brigs, 1 schooner-brig, 4 schooners, 1 steamer, and 1 transport-ship. The Supreme Court, in the year 1850, pronounced 170 sentences and arrests. The court for lesser causes gave 370 judgments. There were in 1850, 5 advocates and 2 procurators. In the Court of Inheritance and Orphans, there were brought 140 cases of inheritance, and under their guardianship were 418 children, of whom 43 were maintained by the government.

The Church.—The most numerous sect are the Moravians, who number 17,933 members. The Charitable Society, which was instituted in 1847, had, at the end of 1850, 100 members, paid for the instruction of 50 children, took care of 4 aged persons, and gave medical aid to 32, and in their saving fund was a capital of 15,698 florins. The colony had 17 physicians and surgeons, 9 midwives, and 10 apothecaries. At the close of 1850, there were in Paramaribo 14 schools, with 1,101 scholars. In lower Nickerie there was one school. Besides the 14 mail steamers from Paramaribo to Demerara, there are no public facilities for travel.

Finances.—The receipts of the colony amounted to fl.1,090,180; the expenditure, fl.1,042,399. Under the receipts are 150,000 florins supplied from Holland. On the 1st of January, 1850, a new personal tax, in ten classes, went into operation, instead of the poll tax for the free population. The mail was also declared a monopoly. On 273 plantations, consisting of 366,548 acres in all, 48,815 acres were under cultivation. The products of trade were, sugar, rum, molasses, coffee, cocoa, cotton; together, 3,108,265 florins. The number of cattle were 5,564 horned cattle, 168 horses, 59 mules, 4,664 swine, 3,115 sheep, 454 goats. To 4 persons there were committed 63 acres. Surinam, in 1850, was visited by 246 ships, with 12,543 cargoes; 41 ships were Dutch. The value of imports amounted to 2,087,562 florins, of which from Holland was to the value of 1,236,499 florins; the export was 2,877,102 florins, of which to Holland there was to the value of 2,263,562 florins. In the custom-house there was entered during the year, goods valued at 72,097 florins, and there was also cleared in same time, in value, 2,263,562 florins.

POPULATION, 1850.

	Curaçoa.	Bonaire.	Amba.	Eustatius.	Saba.	St. Martin
Free	11,225	1,478	2,443	782	1,014	1.227
Slaves	5,573	742	602	1,150	649	1,612
Total	16,798	2,220	3,045	1,932	1,663	2,839
Protestants	1,998	118	414	1,343	1,650	1,097
Catholics	13,971	2,108	2,629	235	13	116
Methodists	—	—	—	352	—	1,623
Jews	829	1	2	2	—	3

The military garrisons of all the islands, at the close of 1850, was 14 officers, 408 soldiers, 3 physicians. The island of St. Martin, besides, had a squadron of citizen cavalry. At Curaçoa were attended in the military hospital 1,542 patients, of whom 9 died. There were there also 2 offices for orphans, a general one, and one for the Portuguese Jews. In the courts at Curaçoa were 20 great, 25 lesser civil causes, and 37 criminal ones. There were 38 prisoners in the prison. There were likewise 2 advocates, 1 procurator, 3 translators, and 3 preachers, 10 salaried priests and 21 sisters of mercy, 5 physicians and surgeons in the civil service, and 2 apothecaries. The quarantine regulations were rendered more stringent in 1850. In the Lazaretto were 26 sick and 4 insane; the cost of maintaining each being about twenty cents a day. The supervision of the poor is wholly in the hands of the church, but it is responsible to the government. A saving and a loan bank were instituted in 1850. The former had 272 deposits, the latter loaned on 1,247 pledges, 26,121 guldens; 1,460 children received instruction. A packet ship company for passage to St. Thomas was formed in 1850. The principal money circulated still consists of piasters, and the parts of the same. The imports of Curaçoa, Bonaire and Amba, amounted, in 1850, to 198,944, the exports 398,635 guldens. The cochineal harvest on these three islands was not favorable, and only reached to 10,632 pounds, at the average price of fl.2,42c. On all the islands there were 564 horses, 3,460 asses, 31 mules, 3,460 horned cattle, 33,403 sheep, 280 swine.

The imports of Curaçoa was valued at 2 to 2½ millions of guldens, an accurate account being still needed, because there exists no obligation to furnish specific statements. 605 vessels came into port, of which 11 came from European ports, 297 Dutch, and 163 Venezuelan. A lighthouse was erected on little Curaçoa. Three ships, with a tonnage of 163 tons, were launched from Curaçoa from the stocks.

In Bonaire there is one surgeon, but no other physician. The proportion of deaths to births, in 1850, was very favourable, being 47 to 116. A principal public school was established in 1850. 295 vessels, of which 160 were in ballast, entered, and 68,449 barrels of salt were imported.

In Amba 46 vessels were cleared.

In St. Eustatius the courts tried 7 criminal and 4 civil causes. There was only one person arrested. There is for this island, and for St. Martin and Saba, one office for orphans and probate court, which, at the close of 1850, administered on 1,553 Fr. In 1850, 326 vessels cleared. The imports amounted to 60,000fr. The export of sugar, rum, &c., was only valued at 8,000fr. The receipts were 6,321 fr., the expenditures, 28,144 francs. In Saba there were no physicians, no school, and the court pronounced three judgments.

In St. Martin, one school was established, which numbered 68 children. There were two physicians. Of salt there were obtained 148,525 casks. A hurricane drove the water into the salt pans, and much salt was destroyed. 334 vessels were entered as arrivals, and cleared. The receipts amounted to 35,225 florins, the expenditure to 40,294 florins.

III. AFRICA.—*Coast of Guinea.*—On account of a little civil war between two tribes of Ashantees, 50 ounces of gold dust were imposed on them for payment, and a road built from Elmina to the fresh waters on the British boundaries. The garrison consisted of 2 officers and 105 soldiers. In Simbo, tobacco was cultivated, which meets a good sale. On the coast there arrived 81 vessels, of which 3 were Dutch. The receipts, especially anchorage money from vessels, amounted to 3,414 florins, the expenditures to 77,190 florins.

Art. III.—RESOURCES AND WEALTH OF CALIFORNIA, 1852–3.

[We have, on several occasions in the volumes of the Review, presented sketches of the history and progress of California, but having lately received through the kindness of Governor Bigler a lengthy report upon the population and wealth of the State, as ascertained by a census taken in 1852, under an act of the Legislature, we cannot do better than present a careful review and analysis of it.]

THE population of the state is distributed amongst the following counties as follows: Butte, 8,572; Calaveras, 20,192; Colusi, 620; Contra Costa, 2,745; El Dorado, 40,000; Klamuth, 530; Los Angeles, 7,831; Marin, 1,036; Mariposa, 8,969; Mendocino, 416; Monterey, 2,728; Napa, 2,116; Nevada, 21,365; Placer, 10,784; Sacramento, 12,589; San Diego, 2,932; San Joaquin, 5,029; San Francisco, 36,151; San Luis Obispo, 984; Santa Clara, 6,664; Santa Cruz, 1,219; Santa Barbara, 2,131; Shasta, 4,050; Sierra, 4,855; Siskiyou, 2,240; Solano, 2,835;

Sonoma, 2,337; Sutter, 1,207; Trinity, 1,764; Tuolumne, 17,657; Tulare, 8,575; Yolo, 1,307; Yuba, 22,605.

The returns for El Dorado had not been received; the population was estimated by comparing the number of voters in several counties with the number of inhabitants, as ascertained by the present census. The proportion is found as 4 to 1. El Dorado cast, at the last general election, a vote of eleven thousand two hundred and fifty-two, so the estimate is rather under the mark. The reports of all the census agents who have made returns, set forth the fact of their inability to obtain the whole population of their respective counties; adding, then, one-sixth to the population returned, would give three hundred and eight thousand five hundred and seven. The entire popular vote at the last general election was seventy-six thousand eight hundred and ninety, and estimating the population at quadruple the voters, the calculation above will be found a close approximation.

The population is composed as follows: white inhabitants, male, 151,115, female, 29,741; citizens of U. S. over 21, 93,344; negroes, male, 1637, female, 253; over 21, 1,259; mulattoes, male, 424, female, 98; over 21, 407; Indians, domesticated, males, 19,675, females, 12,864; over 21, 15,866; foreign residents, male, 50,631, female, 4,360; over 21, 39,044. Total, whites, 171,856: citizens over 21, 93,344; negroes, 1,870; mulattoes, 522; Indians, domesticated, 32,539; foreign residents, 54,991. In this estimate the county of El Dorado is not included, which will probably add to the whites, 30,000; to citizens, over 21, 12,000; to negroes, 200; mulattoes, 50; Indians, 1,000; and to the foreign residents, 5,000, making a final total of whites, 201,856; citizens over 21, 105,344; negroes, 2,070; mulattoes, 572; Indians, domesticated, 33,539; foreign residents, 59,991.

The counties of Nevada, Placer and Yuba, have reported nine thousand eight hundred and nine Chinese. The other counties have embraced them without discrimination under the general head of foreign residents; the number of Chinese is believed to approximate to twenty-five thousand.

The capital employed, and the productions of California, are put down at ONE HUNDRED AND EIGHT MILLIONS, FIVE HUNDRED AND TWENTY-TWO THOUSAND, FIVE HUNDRED AND SIXTY-EIGHT DOLLARS!

Amongst the items we notice live stock, $18,903,714; agricultural products, $6,162,040; land in cultivation, $1,107,480; horticulture, manufactures, &c., $1,150,000; mining, $16,397,427; real estate (town property) $26,738,976, &c., &c.

The live stock consists of—horses, 64,773, valued at $30; mules, 16,578, at $50; cows, 104,339, at $50; beef cattle, 315,392, at $25; work oxen, 29,605, at $50; sheep, 82,867, at $12; hogs, 38,976, at $10; poultry, 96,230, at $2.

The agricultural products are—barley, 2,973,734 bushels, at $1 40; oats, 100,497 bus., at $1; wheat, 271,763 bus., at $2 40; potatoes, 1,393,170 bus., at $1 50; and corn, 62,532 bus., at $2 50.

The land in cultivation is valued at $10 per acre.

The live stock, agricultural products, and land, are much below the average market value.

W. Van Voorhies, Esq., the Secretary of State, says, "a comparative view of our position shows that in reference to other states, we are in advance of 15, in horses; of 26, in mules; of 12, in milch cows; of 8, in work oxen; of 4, in sheep; of 3, in swine; of 22, in live stock, only equalled by one state, New-York; in barley—raising more than one half as much of that article as is produced in the whole Union. Besides, in potatoes, we stand next to New-York; in wheat, we surpass ten of the states.

* * * *

In mining, we stand not only without a parallel, but without a competitor.

* * * *

In fruits, we excel all the states in variety, and one half in quantities produced.

Yolo, Trinity, Sutter, Santa Cruz, San Diego, Sacramento, and Nevada counties, have reported merchandise to the amount of FOUR MILLIONS OF DOLLARS."

MINERALS, &c.—In Butte county, platina and iron abound; lead, in a pure state, on head waters of Middle Fork; quicksilver in abundance; silver, in small quantities; quartz, paying a good per centage. The scenery in this country is picturesque and grand; beautiful and fertile valleys abound, fitted for agriculture and stock raising, well timbered, and covered with the finest grass. Water abundant, and irrigation easy.

CONTRA COSTA COUNTY.—Limestone of excellent quality, gypsum; excellent building stone, and red free stone have been discovered. Sulphur springs abundant, mostly tepid; saline springs exist.

KLAMUTH COUNTY.—Trinity valley finely agricultural; a portion set apart as an Indian reservation.

Klamuth, Trinity, and Salmon rivers, all abound in gold; abut 250 miners at work in them, averaging $7 per day. Mount Prospect, on the Klamuth river, 5,000 feet high, covered with snow eight months; Salmon mountain, covered nine months in the year. There is a strip of land on the coast, five miles wide, twenty long, unsurpassed for agricultural purposes, intersected by streams.

LOS ANGELES COUNTY.–Celebrated for its vineyards, containing 450,000 vines, each producing 5lbs. grapes. Salt springs abundant. Hot springs, owned by Mormons. An asphaltum spring, six miles from Los Angeles city, covering two acres of ground. Pitch boils up in great abundance, and is used for covering roofs of houses. The mission lands lie in this county, and are principally cultivated by Catholic priests. Lands rich and fine for grazing. Hemp was formerly raised here and shipped to San Blas, Mexico. Cotton and sugar-cane grow well. Oranges, limes, figs, apricots, olives, peaches, pears, and almost all tropical fruits in abundance, and of the best quality. There is a large body of bottom land within a few miles of the mission "San Gabriel," well watered and timbered, capable of producing every variety of vegetables.

SAN BERNARDINO VALLEY.—Sixty miles east from Los Angeles city, rich, well watered and timbered—is occupied by the Mormons. The climate is remarkably salubrious and genial.

MARIN COUNTY.—*Timber*—Red-wood in great abundance, pine, maple, laurel and oak. *Fisheries*—Seal, salmon, trout, sturgeon, bass, &c. *Game*—Deer, elk, antelope, bear, hare and rabbit, geese, duck, snipe, quail, plover and curlew. *Minerals*, &c.—Gold bearing quartz, placer gold, silver and copper ores have been found, and iron ore in abundance; cinnabar, quicksilver, yielding 60 per cent., soapstone, lime, asphaltum, marble, brick clay, and granite abundant.

MARIPOSA COUNTY.—*Minerals*—Gold in abundance; 6 quartz mills in operation, and many erecting, all paying well. Sixty quartz grinding machines, paying from $16 to $25 per day, each. Five hundred and twenty-two quartz veins, legally located. The extent of the gold region is one hundred miles in breadth, and extending "indefinitely back into unexplored regions."

MENDOCINO COUNTY.—*Sulphur Springs*, in the upper end of Salinas valley. *Minerals*—Gold has been found at San Antonio and in Carmel valley; silver has been found in small quantities—the lands are rich and productive, nearly all covered by Mexican claims. Grazing fine, and stock raising extensive. *Horticulture*—Orchards of San Juan Bautisto, and San Carlos; vineyards of Solidad and San Antonio.

NAPA COUNTY.—Gold found, but not to justify mining. A mine of quicksilver, supposed very rich, fourteen miles above the town of Napa. *Mineral Springs*—A cold medicinal spring, twenty miles above Napa city: warm springs, highly medicinal, having been tested by invalids—also, a soda spring. *Natural Curiosities*—The hot sulphur springs, (or Geysers) in the mountains, about seventy miles above Napa city in a northerly direction, one of the greatest curiosities. They are from one foot to eight or nine feet in diameter, and constantly in a boiling state; the water spouting to a height of 10 or 15 feet. Hundreds of fissures in the sides of the mountains emit strong currents of heated gas, making low hissing noises, as loud as the steam escaping from ocean steamers.

SAN JOAQUIN COUNTY.—Located in the heart of a valley hundreds of miles in exent, fertile and fine for grazing. The principal production is barley, yielding 80 bushels to the acre. *Horticulture*—Garden produce, melons, &c., are raised in abundance. *Game*—All descriptions found on the plain. *Fish* plenty, many persons are engaged in catching and curing salmon. The roads are level and in good order—the ferries and bridges excellent—conveniences of travel great to all points. *Stockton*, one of the principal cities, contains 3,000 residents; the state hospital erecting there an ornament to the state.

SAN LUIS OBISPO COUNTY.—*Minerals*—Rich mines of silver; a mine of the finest carbon coal on the rancho of Don Jose de Jesus Pico, on the bay of St. Simon. *Sulphur Springs*—Warm sulphur about ten miles south of San Luis Obispo—the panacea of the natives. *Timber*—Pine of large size and superior quality. Lime rock in great abundance. *Wild Horses* found in large numbers—valued at $15 per head.

SANTA BARBARA COUNTY.—*Minerals, &c.*—A hot sulphur spring in the Montecito, near the village of Santa Barbara—temperature above 100° Fahrenheit—basin large enough to bathe in. *Salt*—Abundantly supplied from the Salinas; gathered in August and September by cart loads. *Tar*—One or two springs in the neighborhood of Santa Barbara; the sea throws up bitumen for leagues along the coast. *Islands*—The rendezvous of otters, seals, sea elephants, and beaver. *Agriculture* in a very rude state—material for fencing scarce. Soil very productive—vegetables large and excellent, grasses luxuriant and nutritious.

SAN FRANCISCO COUNTY.—Coal has been discovered. *Timber*—Excellent red-wood in some parts of the county. Agricultural resources yet undeveloped—quality of soil rich and productive—farming rapidly increasing.

SHASTA COUNTY.—*Minerals*—Many springs strongly impregnated—the soda spring, situated near the Sacramento river, 60 miles north of Shasta city. *Salt Springs*—12 or 15; enough to supply the state. *Mines* very numerous; not a river, creek, gulch, or ravine, that does not contain gold. The principal mining localities are French Gulch, Mad Mule Canon, Mad Ox Canon, Whiskey Creek, One Horse Town, One Mule Town, Clear Creek, Grizzly Gulch, and Middle Town. The total annual amount of product, $2,492,000.

SOLANO COUNTY.—*Mineral Springs*—Three large soda springs in this county.

YUBA COUNTY.—The principal mining operations are located on Yuba river; 110 companies engaged; 11,371 feet turned from course. Dry Creek, No. 3, empties into Yuba river from the north. Several small streams entering into it; forty miles in length; nine saw-mills on it. Gold paying $4 per day per man. Indiana Creek empties into Dry Creek, 22 miles from mouth; steam saw-mill on it; best of timber; much gold, paying $5 per day. Clark's run empties into the Yuba river from the south, 20 miles from Marysville; 600 men at gold digging; paying from $5 to $50 per day. Middle Yuba—500 Chinamen mining; one saw-mill.

SCOTT'S CREEK.—Much gold; quartz gravel pays from 25 cents to $1; the pan digging very profitable; employment for a great number of years. Mill Creek, one saw-mill. Hampshire Creek, five saw-mills; timber fine and lumber excellent. Deadwood Creek, one saw-mill; gold abundant. Slate Creek, near the foot of the Sierra Nevada; gold very coarse, generally in large deposits on the bed rock, yielding $8 per day per man.

Minerals.—Gold and quicksilver, the latter yielding one ounce pure to the pound of rock. *Principal Towns*—Marysville, containing a population of 4,500 inhabitants, is situated on Yuba river, one mile above Feather; Ousley's Bar, population 390; Kennebeck, population 120; wages $5 per day. Long's Bar, population, 450; wages $5 per day.

We conclude by giving a condensed statement of the commerce and of the finances of San Francisco. The number of vessels entered from January 1st to February 27, 1853, from domestic ports, were 76, tonnage 54,127; foreign ports, 129, tonnage, 50,566. The number cleared for domestic ports, 98, tonnage, 21,674; and for foreign ports, 161, tonnage, 75,830.

The late message of Mayor Brenham to the City Council of San Francisco, shows the following financial abstract:—Amount of bonds issued by the commissioners of the funded debt up to the 15th June last, (less amount redeemed,) was $1,461,171 29; since when, bonds have been issued for city scrip, judgments, and recently audited accounts, amounting to $72,141 39; deduct for amount provided and in hand for the sinking fund for the current year, $50,000, leaves $1,483,312 68 cents. Satisfaction has been entered upon all the judgments against the city for indebtedness, the consideration of which accrued prior to May 1, 1851; and all suits recently pending against the city upon that class of demands, have been compromised and withdrawn from court, forming a very considerable portion of the amount lately funded. The amount of unfunded three per cent. scrip now in circulation does not exceed, principal and interest, $75,000. This, it is hoped, the commissioners will be able to liquidate, by the amount to be received from old street assessments, amounting now to $110,000, which have been placed at their disposition by an ordinance of council. Since the late report of the commissioners of the funded debt, they have made considerable sales of city property, amounting, in October last, to nett $155,123 87, which was appropriated as follows: received in payment three per cent. city scrip, $124,892 86: redemption of property sold at sheriff's sale, and interest on same, $19,584 64 cents; paid state on account of sales of water lots, $5,000, and a cash balance of $5,646 37. The subsequent sale of lots not taken by bidders at the previous sales, amounted to $32,980, the account of which has not yet been adjusted; but it is presumed the payment will be made in the three per cent. scrip, thereby reducing the amount outstanding.

Art. IV.—THE EAST INDIA ISLANDS.

No. II.

BORNEO AND CELEBES.

In the July number of the Review we gave our readers a paper on the present social, political, and commercial condition of Java and Sumatra. We continue our rapid, but we trust faithful sketches of the Isles of the East Indian Archipelago, commencing with

Borneo.—To the north of Java and southwest of the Philippine Islands is the great island of Borneo, the largest in the world next to Australia. It is the largest fragment of what was once probably a continuation of the continent of Asia south, except Australia, which formed the southern extremity. Its shape is very irregular. Its length from northwest to southeast is about 800 miles; and its greatest breadth 620. Its superficial area is estimated at 212,689 square miles.*

The name Borneo is supposed to have been first given to it by the Portuguese, and is a corruption of the word *Burni*, the name of a kingdom and town on the northwest coast of the island. The natives have no name for the whole island, and, indeed, generally have no idea that their country is an island. It is only the Malays and inhabitants of the sea-coast who have a knowledge of its insular character, and a name for the whole of it. These call it Tanah Kalamantan, Pulo Kalamantan, or simply Kalamantan. The terms *Tanah* and *Pulo* signify *land* or *continent*, in the language of the Malays.†

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* Mr. McCulloch gives 260,000 square miles for the area of Borneo. This would make Borneo more than five times as large as the State of Pennsylvania.

† Hugh Low's Sarawak, p. 3.

Borneo has been long known to Europeans, and is probably the island called by Marco Polo the *Greater Java*. No settlements were attempted on it for many years; and it is remarkable that the Portuguese, Spanish, and Dutch, who so long contended for the spice trade of the Moluccas, and who must have been well acquainted with the productions of Borneo, so long neglected that island so rich in spices.

The first settlements made on the island were by the Dutch, in 1747, at Banjar, on the southern coast; they abandoned it, however, in 1810, the Sultan paying them $50,000 to get rid of them. They had previously, in 1687, joined the Sultan of Bantam in an attack upon Sucadana, for the purpose of replacing the disinherited Sultan, Gara Loya, on his throne.

Several European nations had attempted to form settlements in Borneo before the Dutch at Banjar, but had always been repulsed by the natives, and sometimes massacred. If we may believe such particulars as are related to us of the conduct of the Europeans in Borneo, they richly merited the treatment they received. In 1748 the Dutch appeared off the coasts of the island in such large force, that the Prince of Tatas was awed, and forced to grant them the exclusive privilege of trade on his pepper plantation—only reserving to himself the right of selling 500,000 lbs. of pepper to the Chinese. In consequence of this treaty the Dutch company have imported to Banjar rice, opium, salt, and coarse cloths, but not with much profit. Their chief profit, however, was from diamonds which they procured of the natives, together with some 6,000,000 lbs. of pepper.

In 1706 the English were allowed to build a factory at Banjar, but abused their privileges so grossly by domineering over the inhabitants, levying toll from those who passed up the river, and showing disrespect to the reigning power, that the natives became enraged, burned the factory, and drove the English from the island. They were afterwards permitted to trade as private merchants, not under the auspices of the English East India Company. In 1773 the English formed an establishment in the isle of Balambangan, at the extreme northern point of Borneo, which the natives destroyed. It was rebuilt in 1803, but soon afterwards abandoned voluntarily.*

The Dutch had also a factory at the flourishing Malay settlement called Pontianak, which was also given up by them in 1810; they recovered it in 1823, and still retain it. Soon after the Dutch left Banjar, in 1810, the Sultan of that place invited the English† to come and settle there, which invitation they accepted in 1811. This settlement was afterwards delivered to the Dutch, who still retain it. The only other Dutch settlement on the island is at Sambas, on the western coast. It was made in 1823, the right to settle, and a monopoly of the trade purchased of the Sultan. Sambas had previously been a nest of pirates, which the English ships, sent for that purpose in 1812, from Batavia, destroyed.

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* Craufurd, vol iii, p. 223. Beckman's Borneo, p. 101.

† Low's Sarawak, p. 4.

These are the only permanent settlements that Europeans have made on the island; and none of them have ever prospered. Even those which the Dutch now hold are said to be an annual expense to the government.

In consequence of the languid state of the settlements on the island, and the warlike character of the natives, no complete survey of the coasts of Borneo have yet been made; but the English have made considerable progress in the survey of the western coasts, under the direction of the Admiralty, and a complete chart of the western coasts is now nearly if not entirely completed. The eastern coasts of the island are still unexplored. These, however, cannot long remain unknown, as the necessity of exterminating the pirates will compel those engaged in that work to survey the eastern shores.

Borneo is nearly in the centre of the great group composing the Eastern Archipelago, or Sunda Islands, and around it clusters the richest spice islands in the world. It lies between latitude 4° 10′ S., and 7° N.; and between 109° and 119° 20′ E. On the north and west of it is the China Sea; on the east the Sea of Celebes and the Straits of Macassar; and on the south the Sea of Java.

The coasts of Borneo are less indented by deep bays or creeks than most of the other islands of the archipelago; it has, nevertheless, an abundance of fine harbors. The shores are low, and composed chiefly of fine sand, with mud banks, surrounded at the mouths of the rivers with numerous very minute rocky islets; and the lands continue marshy for many miles into the interior. They are alluvial, and not a monotonous dead level; but are interspersed with gentle undulations of the surface, thickly shaded with copse-wood.

In all the maps of Borneo are seen mountains, running from northeast to southwest through the centre of the island. Mr. Earl, who visited the interior in 1834, says that he saw no traces of such mountains, and that he does not believe in their existence.*

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* This statement of Mr. Earl appears to be very erroneous, if we may credit the more recent accounts of Mr. Low, author of the work published in 1849, entitled SARAWAK. Mr. Low appears to have had many facilities for observation, and remained on the island more than two years. He says:

"The mountains are disposed in a range, which traverses the island from its northeast extremity in a southwesterly direction. In the northern division they are very high, Kina Balou being nearly 14,000 feet. They appear gradually to decrease in height as they approach the southwest shore. About the middle of

Some of the earliest writers on Borneo represent its centre as being occupied by a vast lake, out of which some of its principal rivers flow.

RIVERS.—These are said to be very numerous—upwards of 100 in number, and many of them large and navigable. The principal river is the Banjarmassin, which has a south course nearly throughout the whole island, and falling into the sea not far from the town of the same name on the south coast. On the eastern side of the island are the Coti, Passir, and many others; and, on the western are the Sambas, Pontiana, Landak, Succadan, and others, all large. The Sambas is one mile wide at its mouth, and still wider farther inland. The Dutch have ascended it in small vessels, 80 miles, and canoes can navigate it several days farther. The larger rivers coming from the centre of the island appear not to have their origin in any mountainous region,* as the rainy season does not affect their height; and they seldom contain any sandbanks or rapids. These facts have probably given rise to the statement, that there is a vast lake in the centre of the island. Between Sarawak and Bruni there are upwards of twenty mouths of large rivers, with settlements, visited by the Malays. No country in the world is better watered than Borneo. The Pontianak river flows out of a lake, 250 miles in the interior, which is 25 miles long and 9 broad.

The sea shores of the island are all of fine sand, lined with a hedge of the beautiful arroo tree. The mouths of the rivers are generally muddy, and overflowed for some miles by the tides. A long chain of large lakes exists in the interior, between Kina Balou and Danau Malaya; but as yet they have not been explored by Europeans.

GEOLOGY, &c.—The rocks of the mountains of Borneo are of a decided primary character. A range, called the hundred mountains, lines the southeastern shore for ninety miles. A range stretches along the northwest coast, which is about 3,000 feet in height; there are also numerous isolated hills in Borneo. In the northwest part are numerous and extensive plains; but the most important plain is that of Montradok, near the west coast.

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the island, looking from Tanjong Barram, they are 8,000 or 9,000 feet high; westerly, in the Pontianak country, they are 2.000 to 4,000 feet high. Lieut. Gordon has recently measured the height of several of the principal peaks in the northern part of the island.—*Sarawak*, chap. 1."

* Such is the account of Crauford, Earl, and others; but Mr. Low directly contradicts this statement. He says that from the mountains descend a great number of navigable rivers, and that in the centre of the island are mountains from 8,000 to 9,000 feet high. Mr. Earl made only a flying visit to Borneo, and his statements must yield to those of one who resided there nearly three years.

Although the surrounding islands of the archipelago, many of them at least, are volcanic, there is no trace of volcanoes in Borneo, nor has it ever been visited by earthquakes. On the Samarkand river is said to be a spring of warm water, and at Borneo are one or two small mineral springs, and one of naphtha. Coal is exceedingly abundant in Pulo Labukan, and in Borneo Proper. It lies near the surface, in apparently inexhaustible veins. It has been used by the English steamers, and found to be of the best quality.

Besides the metals which we have already mentioned, tin has been recently discovered in Sarawak, in abundance. Nickel is also found there, combined with iron and cobalt. Quicksilver exists in many parts of the island. Gold is abundant. It is found in the crevices of limestone rocks—a remarkable fact, which is worthy of the study of geologists and mineralogists; the whole alluvial soil is strongly impregnated with gold. "The golden shower," says Mr. Low, "into which Jupiter is fabled to have transformed himself, appears to have fallen here." Borneo is another California, but little known. About 32,000 Chinese work in its mines annually, and some 500 return annually to China with a competency.*

The annual product of the gold mines of Borneo is from $3,000,000 to $4,000,000. In 1812 the mines on the west coast yielded $4,744,000. They are all worked without machinery. The gold mines of Borneo would yield, probably, four times their present amount if properly worked.

Borneo is rich in minerals of the most valuable kind, and is the only island of the archipelago in which diamonds are found. They are obtained chiefly from the part of the island called Londak, in the Chinese territory. One in the rough state, weighing 367 carats, and estimated to be worth £269,378, has been found there, and, in 1815, was the property of a petty chief. The alluvial soils of the island produce the greatest number of diamonds, as well as some gold. They are small, but of a good water. The plain of Montradok is said to have formerly yielded 88,362 ounces of pure gold annually.† The soil in which the gold dust is found is stiff, and the veins lie from fifteen to sixteen feet below the surface.

Besides gold, there are inexhaustible mines of ore of antimony, of very superior quality, at Sarawak, 1,400 tons of which, at from 16s. to 20s. per ton, are exported to Singapore. Tin is also abundant, and iron is found in the interior. The gold mines are generally worked by companies of merchants.

CLIMATE.—Borneo, lying on the equator, has of course the climate usual to most countries so situated. It is, in general, salubrious. The west coast has no rainy season in particular, but is refreshed by showers all the year round.

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* Sir Stamford Raffles.

† Hamilton's East India Gazetteer.

The climate of Borneo, says Mr. Low, has been found exceedingly healthy to persons who are employed within doors. The thermometer generally ranges from 70° to 72° Fah. in the morning and evening, and at 2, P.M., the hottest hour, from 82° to 85°. Sometimes the mercury has been known to rise to 92° or 93°. A cool breeze always prevails in open places.

PRODUCTIONS.—The soil of Borneo is generally very fertile; but Borneo Proper, that is, the extreme northern end of the island, is the only part that yields sufficient grain for consumption. The rice produced is excellent, and maize and sugar-cane, as well as all of the tropical fruits, are cultivated in great abundance. The timber of Borneo is often found very large, but none fit for ship-building. No teak has yet been found there. Mangrove and rattans abound along the rivers. Among the other trees, the principal are the iron-wood, ebony, camphor, dammer, tankamem, cocoa-palm, betel, cinnamon, sago, &c. The tankamem tree produces wood-oil. The camphor tree grows to 15 or 16 feet in circumference, and proportionally high. It is cut down, split into pieces, and the produce, camphor, is found in the fissures. The camphor of Borneo is of the first quality, and is chiefly exported to China. The other products are beeswax, deers' horns, pepper, and bezoar stones.*

The gutta percha tree is very abundant in Borneo. The substance called gutta percha is an exudation, or the sap of the tree collected from incisions. It is boiled to drive off the water, and is then ready for market. Mr. Low also visited the famous *upas* tree, in 1845, accompanied by Captain Bethune, R. N. They found no difficulty in breathing its atmosphere. It is a tree about 60 feet high, with a fine trunk, and a bark of a very white color. It is supported at its base by those processes, resembling buttresses, which are so common to the trees of tropical jungles.

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* At the great World's Fair, held in London in 1851, there were exhibited from the island of Borneo, specimens of coal from Labuan, on the northwest side of the island; also specimens of sulphuret of antimony, and some pessites of gold and rolled diamonds. A large series of rices, grown in Borneo, were also presented by the British East India Company, some of which were very curious. Betel nuts were also exhibited from Sarawak, Borneo, and a prize medal was awarded for Borneo coffee, on account of its "great superiority in color and weight." It was raised on the estate of Mr. M'Henty, Sarawak. The other articles exhibited from Borneo were arrow-root, cotton, grown from Pernambuco seed at Sarawak; and specimens of wood from Labuan. All of the above articles were presented by the British East India Company, who deserve the highest praise for their exertions made to exhibit to the world the valuable products, not only of India, but of the great insular world of the Indian Archipelago. They exhibited no less than 18 varieties of native India cotton. The cotton of Borneo had "a pretty long staple, though a little coarse and uneven; still very clear and of a good color." Forty-eight specimens of wood were also exhibited from Labuan, Borneo, accompanied with a description of the height, diameter, uses, fruits, &c., of each tree. For further information on this subject, see the great work printed for the Royal Commission, entitled, *Reports by the Juries on the subjects in the Thirty Classes into which the Exhibition was divided.* 1852, pp. 15, 53, 57, 59, 62, 94, 138 and 139.

ANIMALS.—In the northeast part of the island are found elephants, rhinoceroses and leopards. In all other parts are the ox, the wild hog; and the jungles furnish an endless variety of the ape and monkey tribes, among which are the orang-outang, and a species of baboon 3 feet in height, tailless, with short, glossy brown hair, and an aquiline nose, projecting 1½ inches from the face.* There is also the tapir, deers, and a very small species of bear. Mr. Earl describes a singular amphibious animal, about eight inches long, inhabiting the western coast, having large pectoral extremities. It is much esteemed for food. The Sooloo Sea, east of Borneo, abounds in spermaceti whales; and the seas about the island generally afford an abundance of fish, oysters, and other testacea.

Borneo teems with animals. Of mammalia, 61 species have been enumerated by Dutch and English naturalists; of birds, 59 species; of reptiles, 22 species; and of fishes, 22. The alligators of Borneo are very large, numerous, and dangerous to persons in boats. They are from 15 to 17 feet in length, and often attack men in boats.†

POPULATION.—The interior, and part of the northwest coast are peopled by Dyaks, and by a woolly haired race, resembling, it is said, the negroes of Papua. On the west coast are found Malays, Chinese, and Dutch colonists. That portion of the northwest coast, not peopled by the Dyaks, is occupied by half caste descendants of the Moors of West Hindostan. The north part of the island is inhabited by *Anamese* from Anam, in Cochin China. The northeast coast is peopled by the Suluks, and the east and south shores by the Bugis of Celebes. Besides these, there are three wandering tribes in the island, living in small vessels about the shores.

The aborigines of Borneo are believed to be the Dyaks, (Orang-Benna.) Small tribes of them are found in all parts of the island. They are of a middle size, well-formed and muscular, but not as strong as the Chinese. They have short, broad feet, high cheek bones, foreheads broad and flat, eyes rather long, with the outer angle higher than the inner. Their faces are prominent, with a pleasant expression, and they resemble the Anamese more than any other Asiatic nations. They intermarry with the Chinese. Their manners are mild and prepossessing, and they commonly avoid strangers, owing, it is said, to the harsh treatment they have received from the Malays.* They are ingenious, and disposed to civilization and to progress in the arts.† They are found in the most ameliorated condition near Banjarmassim, and in the northeast part of the island. They are said to possess a written character for their language. There are dialects among them so distinct as to render them unintelligible to each other. Mahommedanism is the religion of the more civilized portion. The less civilized believe in a Supreme Being, and in a future state, but suppose that in the latter the owner of a human head will have the person to whom it belonged as his slave—a belief which has led to a widely extended system of human sacrifice. No one can marry without the head of some one having been first obtained by himself or his friends; and at the funerals of persons of consequence, or on the ratification of treaties of peace between chiefs, slaves or prisoners are decapitated to obtain these trophies. The heads are dried and hung in their houses; and piratical expeditions are often undertaken for the express purpose of obtaining human heads. Next to human heads, which appear to them the most valuable of all articles, China jars are valued, and from some superstitious motives are so highly prized, that they have been known to give more than £200 for a single one. Most of them are ashamed to avow certain of their well known usages, such as seeking and preserving human heads. Drinking the blood of a Bornese in a cup of water, says Mr. Earl, binds the person so doing by ties closer than those of consanguinity.

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* Earl's Eastern Seas.

† Low's "Sarawak."

Rice is their chief food, with pork, fish, deer, and other wild animals, which they shoot by means of arrows blown through a tube. This is their general weapon, but they sometimes use the common bow, and arrows with poisoned points. Their houses are of bamboo, elevated on high posts, to which they ascend by ladders, which are drawn up at night. Several of these forming a village, are often surrounded by a stockade as a defence. Most of the tribes tattoo, and they are very fond of beads, feathers, and other finery. Along the banks of large rivers, several different tribes are found united under a common chief, but elsewhere the tribes live separate.

Some of the Dyaks are occupied in washing gold, to sell to the Malays for red and blue cottons, beads, brass wire, salt and other necessaries, and also for tobacco, of which they are extremely fond.

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* The Dyaks are sunk into the lowest stage of moral degradation. The loose morality of both sexes almost exceeds belief, and is altogether too disgusting and abominable to admit of description. There is no parallel to it except among the Esquimaux on the shores of the Polar Sea, in America, and in northeastern Siberia. For a full description of the manners and morals of the Bornese, in general, we must refer our readers to the work of Mr. Low, entitled "Sarawak," published in 1848.

† Earl's Eastern Seas, p. 260.

The Lanuns are pirates, who infest the northwest coast for 300 miles, and cruise in other parts of the archipelago, plundering villages, and often carrying off their whole population into slavery. Sometimes the Dyaks join them in these predatory expeditions, and bring away the iron and human heads, leaving the rest of the spoil to the Lanuns.

The Orang Badju are a kind of sea gipsies, in person like the Malays, living at the mouths of most of the rivers on the east side of the island, in families of from 12 to 15, and in boats of from 8 to 10 tons each, covered with a roof of matting when in port. They are engaged in fishing and in making salt. They are Mohammedans. To the north of them live the Orang Tidong, a hardy race, and said to be cannibals.

Borneo Proper, or the extreme northern part of the island, is inhabited by Malays. It is a Malay sovereignty, and said to be the most ancient in all the island. The Malays of Borneo are distinguished for their haughtiness, indolence, piracy, and their intestine commotions. They are generally Mohammedans. The Malays are not destitute of some arts, among which is that of casting cannon. In this they are skilful, and arms and ammunition are good articles for export to Borneo. The chief state on the east side of the island is Coti, belonging to the Bugis. The people there are commercial and piratical. Passir, a considerable town a little south of Coti, and standing on a large river, is a den of pirates. On the eastern coast, as in Java, are said to exist the remains of gigantic temples, images, &c., relics of a more civilized people, who inhabited it at a remote period. The great East Indian Archipelago presents a vast field for the pursuit of antiquarian and historical researches. They were once, probably, the seat of a vast and powerful empire of high civilization. The population of Borneo is unknown; but it is estimated at from 3,000,000 to 4,000,000.

CELEBES.—This island lies directly east of Borneo, the equator passing through the middle of it. It stretches from 2° north to nearly 6° south, and from longitude 119° to 125° east. Its area is estimated at 75,000 square miles. It is, therefore, nearly twice the size of Java, and a little larger than the state of Pennsylvania. Its shape is very irregular, three large bays indenting its eastern coast. Like most of the other great islands of the archipelago, Celebes abounds in extensive grassy plains or prairies, without timber, which is not very plentiful in the island generally.

There are only three rivers of any consequence; the Chiurana, which rises in the centre of the island, and empties into the bay of Boni. Its direction is south; another stream runs north from the interior; and a third, west. The Chiurana rises in a large lake, and is navigable its whole length for boats, and for ships a considerable distance.

Little is known respecting the geology of the island. Volcanoes are said to exist in the north part. Gold is found in the streams of the island, but not in as large quantity as in Borneo.

The chief products of the island are rice, maize, cassava, cotton, and tobacco, all of which thrive admirably. The teak tree is very scarce in the island, all found there having been raised from imported seeds. The vast plains afford abundant pasturage. Deer, wild hogs, and a vast variety of other wild game are found in all parts; but there are no tigers or leopards. The horses of Celebes are large built, and trained for hunting. They excel in fleetness and in perseverance.

The southern peninsula of the island being the most healthy, is by far the most extensively peopled, and contains the two principal states of the island, those of Boni and Macassar. The centre of the island is said to be inhabited by the Horaforas, supposed to be the aborigines. The brown race consists of a number of tribes, agreeing remarkably in person, but divided into four or five different nations, of which that of the Burgis is by far the most considerable. They are usually robust and heavily formed, but well built, and about five feet high. They are remarkable for their revengeful disposition. They are great hunters, going out regularly, after the rice crop is gathered, in parties of 200 horsemen.

The Wadju, occupying the central parts, are a commercial and enterprising people. The natives of Celebes are the most celebrated in the archipelago for their manufactures of cloth, their fabrics ranking before all others for fineness and durability. They are, however, ignorant of the art of calico-printing, even as rudely practised in Java, and of giving their fabrics the brilliant colors of those of the Asiatic continent.

Notwithstanding the symptoms of a considerable advance in civilization, a great deal of rudeness and barbarity exhibit themselves. Crimes of almost all kinds are frequent, especially thefts, murders, and robberies. A total disregard of human life seems to prevail, and assassinations for hire are common. Mahommedanism, introduced by the Malays, is the predominant religion.

The languages spoken in Celebes belong to the great Polynesian family, but differ from those common in the west part of the archipelago, in being more soft and pure, and having less intermixture of Sanscrit. The two dialects of the Bugis and Macassars are the principal, and among the most improved tongues of the archipelago. The Bugis have a literature by no means contemptible.

In their costume the people of Celebes avoid showing the knee; and they wear a long colored cloth, the end of which they throw over the shoulder. They blacken the teeth and use unctious cosmetics. Their ornaments are flowers, gold trinkets, and diamonds, as among civilized nations, to which they add krisses, betel boxes, &c. They appear to have in their literature no scientific treatises, but still some knowledge of astronomy. They are acquainted with some of the constellations, and navigate their vessels by them.

The different independent nations of Celebes have each their peculiar form of government; but they are for the most part limited monarchies, the sovereign being controlled by the subordinate chieftains, and these again frequently by the mass of the people. The federal state of Boni consists of eight petty states, each governed by its own hereditary despot, while the general government is vested in one of the number elected from among the rest, but who can do nothing without the assent of the others. In the state of the Goa Macassars, the king is chosen by ten electors, who also choose an officer invested with powers similar to those of the mayors of the palace of France, or the ancient *justiza* of Arragon, and who can, of his own authority, remove the king himself, or any one of the council, and direct the electors to proceed to a new election. In the Bugis state of Wádju, forty chiefs constitute the great council of the nation, which is divided into three chambers, from each of which two members are nominated, who, in their turn, elect the chief of the confederacy. The Council of Forty decide on all questions of peace and war. Women, or infants of the privileged families of Celebes, are commonly eligible to the throne; and women very frequently actually exercise the powers of sovereignty. They, are, throughout the island, associated on terms of equality with the men, taking active concern in all the business of life. They appear in public without scandal, and are often consulted on public affairs. Though the husband invariably pays a price for his wife, she is never treated with contempt or disdain.

Such is a brief sketch of civilization in Celebes; from which it will be seen, that in matters of government the natives of that island, once undoubtedly the seat of a high state of civilization, are not far behind Europe, even at the present day. The great confederacy above described, in Celebes, is not unlike that of the German States, only less powerful; and the political position of women there is decidedly European. Their political and social position, also, is the exact *beau ideal* of Madame Bloomer, and of the Women's Rights party of this country. The people of Celebes are, taken altogether, a very remarkable people. They are accounted a barbarous people, because thefts, robberies, and murders are common among them; but are not these crimes common, very common, even in this country? The inhabitants of Celebes, and, indeed, of all the archipelago, appear to be a people who have retrograded from a high state of civilization to their present condition. They claim a high antiquity, and a celestial origin.

Celebes was first visited by the Portuguese, in 1512, and were expelled from it by the Dutch, in 1660. The Dutch, in turn, in 1811, had all of their possessions in Celebes wrested from them by the English, who restored them in 1816. Macassar is the principal Dutch settlement in Celebes. It contains fort Rotterdam, the residence of the Governor. The Dutch have other settlements on the bays of Tolo and Tomonie, and most of the native states are subordinate to them.*

The trade of Celebes is with the other islands of the archipelago, Australia and China. Forty vessels go annually to Australia, and many others to the other isles of the archipelago, all of which vessels bring back to Celebes pepper, cloves, mace, nutmegs, scented woods, ebony, ivory, horns, hides, tortoise-shell, sharks' fins, edible birds' nests, gold dust, benzoin, camphor, betel, wax, wool, tripang, European woollens and cottons, agave wood, &c., all of which are taken to China in junks, which annually trade with Celebes. The several chiefs have often a monopoly of some articles of produce, as brass, betel nut, opium, salt, &c.

Slavery exists in Celebes, and, indeed, in all of the islands of the Eastern Archipelago, except Java. The present Chinese trade with Celebes has only existed about 200 years; but the trade with India has existed since the second century after Christ. The women in Celebes, as well as in some of the other islands, are almost solely the brokers, merchants, and money-changers. Bills of exchange are unknown to them—much less banks and bank notes, these being the evidences of a higher order of civilization—or rather, we should say, of a higher order of money making. The Mohammedan laws are those chiefly in force. The population of Celebes is unknown, but it is supposed to be between 2,000,000 and 3,000,000.

Art. V.—THE MEMPHIS CONVENTION.†

THE third great Convention at Memphis, for the advancement of Southern and Western material interests, was held in June, and attended by some four or five hundred delegates, representing fifteen states. The deliberations were harmonious; and the result will, no doubt, be favorable, both upon Congress and upon the country.

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* Crauford's Indian Archipelago, passim.

† The reader will find, in the back volumes of the "Review," proceedings of all the earlier Conventions in the South and Southwest, since the year 1839.

We have ever had faith in these deliberative assemblies, which, coming fresh from the people, and embodying their sound practical sense and native energies, tempered by the judgment of leading men, leave an impression not easily effaced, even where the desired results are not immediately accomplished. No one who has marked the amazing development and progressive spirit of the South and West, in the last few years, can doubt that we are indebted for much of it to the stimulant applied by the Memphis and St. Louis Conventions of 1845–'49, and the great Southwestern Convention at New-Orleans in 1852.

Compare these great regions of the Union now with what they were in 1845, when rail-road improvement and manufacturing progress begun first to be discussed on an enlarged scale among us! The wand of the enchanter seems to have passed over them all. Even Louisiana, whose energies and enterprise seemed hopelessly exhausted upon two or three little roads to the suburbs of her metropolis, is investing millions upon great schemes of improvement, which aim alike towards the mountains of New-Mexico and the basins of the Ohio and the Lakes. The Pacific Rail-road, which was then a chimera of some wild and dreamy enthusiast, has taken form and shape, and coerced, from a reluctant government, engineering and surveying explorations on half-a-dozen lines; the preliminaries to such tangible aid as the people almost universally demand shall be given to it, and as will secure the road for the enjoyment even of the old men of the present generation.

Having attended nearly all of the Conventions referred to, and taken part in their action, it was painful for us to be absent from this. That they have produced such wide and beneficial results must, however, be a source of gratification to those who have contributed anything of time, or labor, or pecuniary means, in their service.

There is one point which especially interests us in the late action at Memphis, and that is, the adjournment of the Convention over, to meet in Charleston, S. C., in April next. The people of Charleston, hospitable and enterprising as they are, will know how to receive and welcome such a body. The Southern-Atlantic States will be present in great force, to deliberate with their fellow-citizens of the West. The annual or semi-annual meetings of the Convention should be kept up. We especially urged in the *Review* such an organization, several years ago, and recurred to the matter in the New-Orleans Convention in 1852, in the following language:—

> "*Let us preserve and perpetuate this organization.* Let the members now present, who have been selected as judiciously as any that ever met in the country, resolve that they will continue these meetings, and carry on these discussions, until *all* the great fruits we desire are reaped. * * * *

Let this Convention resolve itself into an association for the promotion of the great industrial interests of the Southern and Western States. Let us provide for its future *annual* meetings, say at Nashville, at Jackson, at St. Louis, at Mobile, at Charleston, &c. * * * * * Thus this Convention will become in time the great centre of the industrial interests of this region. It will collect through its committees and correspondence extensive information, which will be distributed gratuitously at the annual meetings. No one can estimate the good that will be effected. It will be the focus to which leading practical minds will be drawn. It will be in session always by its committees. It will be felt each moment, and throughout all our limits. No more powerful agency could be devised."*

After this brief introduction, we proceed to give the proceedings of the Convention, furnished us in manuscript by the Secretary, and now, for the first time, published as a whole. By an accident of the press it was left out of our last number, but will not lose in interest by the delay.

OFFICIAL JOURNAL OF THE PROCEEDINGS OF THE SOUTHERN AND WESTERN COMMERCIAL CONVENTION, HELD AT MEMPHIS, TENN., JUNE 6TH, 1853.

MONDAY.—At 10 o'clock on Monday morning, the delegations from the different States assembled at the City Hall, Exchange Buildings. Major Jas. Penn, of Memphis, Chairman of the Committee of Arrangements, called the Convention to order, and requested the Right Rev. Jas. H. Otey to invoke the Divine blessing upon its deliberations.

Whereupon the Rev. gentleman offered up a most appropriate prayer, at the conclusion of which Major Penn addressed the Convention as follows:

GENTLEMEN OF THE CONVENTION:—

It is known that this is but the adjournment of the Southern and Western Commercial Convention which met at the city of Baltimore in December last. The officers of that Convention are therefore the officers of this; and if the distinguished gentleman who there presided,—the Hon. W. C. Dawson, of Georgia,—be now in the hall, he is most respectfully invited to take his seat as the presiding officer of this body.

The Hon. Mr. Dawson here arose, and, in most happy terms, declined doing so, alleging that this is a Convention composed almost entirely of new members; that it is really an *original Convention;* and he could, therefore, claim no rights under it. Thanking the Convention for their courtesy, he resumed his seat.

The Hon. H. S. Foote, of Mississippi, then arose, and nominated the Hon. W. C. Dawson as President of this Convention. This nomination was received with loud applause, and confirmed by acclamation. The chairman then appointed Messrs. Bell, Otey and Pope, of Tennessee, to conduct the President to the stand.

Upon taking his seat as President, the Hon. gentleman addressed the Convention as follows:—

GENTLEMEN OF THE CONVENTION:—

I feel highly honored at this exhibition of your partiality, and am flattered at this marked attention so unexpectedly paid me.

As the presiding officer of this body, I will only say that I will endeavor to act with fairness and impartiality, and with an earnest and sincere desire to promote the great objects which we have assembled to accomplish. Entering upon my duties with a distrust of my abilities, I shall most confidently rely upon you to aid me in the discharge of them.

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* See proceedings of New-Orleans Convention, January, 1852.

With your courtesy and kindness to sustain me, I shall look to a happy termination of her deliberations, and to a glorious consummation of the important objects which have called us from our homes. It may be proper for me, as President of the Convention lately assembled at Baltimore, to say a few words as to the purposes and objects which then and there convoked us, and which have again brought us together to-day; and, in doing this, let me promise that I am here as a sincere representative of those feelings and interests which, I believe, have prompted you all to attend.

I am here, not as a sectional man, for I am not one, but I am truly a Southern and Western man, in relation to those constitutional rights that belong to the States now here represented.

As one of those participating in the Convention at Baltimore, it may be proper to say, that we were actuated by no feelings of hostility to any section of the Union; but we had seen for years that the country of our birth, that the people of the Southern and Western States, were suffering for a want of the proper development of the natural resources of their favored land; and hence my earnest advocacy of immediate action.

The commercial wants of the South and West have long been the theme of conversation and discussion in some of the States; hurried the call for the Convention held in Baltimore in December last; and long may the Chamber of Commerce of that monumental city be remembered, for the spirit and energy with which they claimed for the South and West their just, natural and equal share of the exports and imports of this glorious country. Fellow-citizens, we stand to-day on the banks of the great Father of Waters, perhaps on the very spot which may become one of the great crossing points for this gigantic rail-road, which shall soon extend from ocean to ocean, from the shores of the stormy Atlantic to those of the slumbering Pacific, and which will be the mighty agent to band together and harmonize the people of this grand confederacy. On the spot where nature's noblest stream will soon be crossed by the greatest work of human genius—on that spot we hold council to-day.

We are here to discuss the important interests of agriculture, commerce and manufactures,—interests so ably presented to the world by the Baltimore Convention, in that admirable paper there submitted by the Chamber of Commerce of that city, and in the published proceedings of that Convention.

We have met for no unjust, sectional, or unconstitutional purpose, in opposition to no geographical interests, but to examine into plain and admitted rights.

If any seeming sectional antagonism appear, the reply is, that we are members of one family, children of the same mother, only younger than their elders, and by one statute of distributions,—the Constitution of the United States,—entitled to the same rights, and to an equal share of our common heritage.

We should ask nothing more, and should expect nothing less. As a family we have been abundantly blessed, and hitherto plenty and prosperity have crowned our efforts. But now we are rapidly growing up, and our wants have proportionably increased.

Posterity has claims upon us which we dare not disregard. In other words, we desire to regulate our family intercourse, to transact our own business, and not trouble our sisters or strangers to manage our affairs for us. We are here to ascertain how we can best develope our vast resources, and fulfil the duties incumbent upon us, by leaving a rich heritage to our children.

Our agriculture demands our first and most serious attention. How shall we best and most speedily develope its resources? Let us look for a moment at the great West, the valley of the Mississippi, and its affluents,—a region embracing one million two hundred and fifty thousand square miles, and fertilized by these mighty rivers.

Then let us cast our eyes toward the sunny South, the land bordering on the Atlantic and the gulf.

Examine the productions of these immense territories, and their capability when fully developed.

The contemplation is wonderful. What a surplus is even now presented! How enormously will that soon be increased! When shall all this be consumed? What facilities have we for transporting these products to their proper markets? These questions meet us at the threshold. Hence our duty to examine into the capacity of our highways, their improvement and extent, and ascertain what artificial aid the wants of agriculture and commerce demand. We must look for the cheapest, most direct and expeditious means of carrying our surplus products to their consumers, and then build up, if possible, the commercial marts of our own seaboard, which we desire to see the channels of our own export and import trade.

The question then occurs, would it not encourage our agriculture if the planter could be, to some extent, the exporter of his own products, and do that exporting from our own seaports?

Could he not thereby avoid much of the intermediate agencies which so heavily tax his productions and diminish his receipts? Cannot the present commercial policy of intermediate agencies be so liberalized, as to save to the producer a larger proportion of the sale of his products?

But, gentlemen, many of you, perhaps most of you are planters; and without longer dwelling on this head, I will leave it to be pursued by you as your intelligence and interests may dictate.

Our commercial, next to our agricultural interests, will demand some notice at your hands.

The policy of direct trade is properly before us, and it was the chief object of the Baltimore Convention.

Would it not be wise to encourage our commercial men to export our products and import our foreign supplies from and to our own ports? I think so; and sure I am it will be done; for the laws of trade will thus regulate it, as soon as we shall improve our facilities for transportation to our own ports.

For this purpose our attention should be directed to the propriety of obtaining from the General Government such appropriations as will be necessary to remove all obstructions to navigation at the mouths of the Mississippi,—the great outlet of the South and West,—and in the other important harbors of the South Atlantic and Gulf. To encourage mail facilities and emigration to our Southern ports, lines of steamers should be established between the most important of these and Europe and South America; and for this purpose, the South and West should ask from the General Government the same aid which has been granted to certain commercial companies in our northern ports.

The important subject of encouraging manufactures is legitimately before us; and the means best calculated to stimulate our people to make investments in this great source of national prosperity, will, doubtless, be considered adopted; the means by which we shall produce a division of labor, that will encourage agriculture, increase our population, and remove, in a great degree, our present dependence on other States and nations. This is an important question. Let us calmly consider it.

Gentlemen, can we not increase our wealth and independence by judicious organizations of the means a kind Providence has placed in our possession? Shall we slumber longer over our undeveloped wealth? Surely not. Let us develope our beautiful and unequalled inheritance, devote our energies to the expansion of our agriculture, commerce and manufactures, promote industry, and encourage our people in the education of their people at home.

Let us retain among us the wealth we annually spend abroad, and with it let us make still more endearing our beautiful homes; make still more attractive our picturesque and delightful watering places; erect school-houses, academies, colleges and universities; and build, on every hill-top, and in every valley, temples to the ever-living God. Let us establish and sustain presses that will boldly advocate our interests, our policy, and our constitutional rights; and let us harmoniously unite to secure commercial and industrial independence at home. And, gentlemen, as patriots, let us unite in constructing the great work of the age and of the world,—the Mississippi and Pacific Rail-road,—with such branches from New-Orleans to the highest navigable point on the Mississippi, as commerce and agriculture may demand.

These are subjects to employ the minds of us all, and they have no restriction of place.

With no sectional feelings, therefore, but with an eye single to the common good, and to the benefits we may confer on posterity, let us proceed to the consummation of the work we have so auspiciously commenced.

At the close of this address, which was often loudly applauded, the President stated that the next duty of the Convention would be the further organization of the body by the appointment of additional officers.

Mr. Fowler, of Arkansas, then offered the following resolution:

Resolved, That the President appoint a committee, consisting of two members from each State here represented, to provide for the further organization of the Convention, by recommending one Vice-President for each State, a Secretary, with a sufficient number of Assistants, and also to submit the mode in which the vote shall be taken on all questions under consideration. The President said he could not yet appoint such a committee, as he could not know what States were represented, the delegations not having been yet reported.

Mr. Walker, of La., suggested the appointment of a Secretary, pro tem; whereupon Mr. H. G. Smith nominated Mr. J. P. Pryor, of Memphis, who was unanimously elected.

Mr. Trezevant, of Tenn., moved that as the best present mode of accomplishing the object of the gentleman from Arkansas, the delegations from the several States should meet together in different parts of the Hall, for the purpose of selecting their Vice-Presidents and Secretaries.

The motion was agreed to, and the several delegates in a few moments, reported the following Vice-Presidents and Secretaries, to wit:

Alabama.—J. Shackleford, Vice-President; Charles Durby, Secretary.
Arkansas.—G. W. Underhill, Vice-President; J. F. Fagan, Secretary.
Georgia.—J. P. Scriven, Vice-President; R. A. S. Atkinson, Secretary.
Illinois.—J. W. Woodward, Vice-President.
Indiana.—Hamilton Smith, Vice-President.
Kentucky.—R. Apperson, Vice-President; W. Watkins, Secretary.
Louisiana.—Hon. J. Moore, Vice-President; J. B. Leefe, Secretary.
Maryland.—Henry Mankin, Vice-President; W. P. Smith, Secretary.
Missouri.—E. M. Ryland, Vice-President; H. Cobb, Secretary.
Mississippi.—Gen. J. A. Quitman, Vice-President; J. S. Byrne, Secretary.
South Carolina.—A. T. Browning, Vice-President.
Texas.—General M. Hunt, Vice-President.
Tennessee.—Hon. J. Bell, Vice-President; J. T. Trezevant, Secretary.
Virginia.—Charles Ellis, Vice-President.

On motion of Mr. J. B. Bemiss, of La., C. R. Marshall, of Miss., was elected Chief Secretary of the Convention; and on motion of Mr. Marshall, editors and reporters of newspapers were tendered seats at the tables of the Secretaries. On motion of Mr. Williamson, of Tenn., Col. C. D. M'Lean, of Memphis, was elected Sergeant-at-arms.

The President then announced, that, as the Convention was fully organized, each State should send to the Secretary a list of the delegates present.

The following list was then reported:

Alabama.—J. B. Gladney, D. B. Turuer, W. H. Platt, Lewis Troost, W. S. Burr, C. Denby, James L. Donigan, W. Dixon, R. M. Patton, Geo. P. Beirne, J. Lane, J. Shackleford, J. R. Bloeker, S. M'Alpin, W. P. Gould, —— Bridges, E. Wallace, A. E. Mills.—18.

Arkansas.—D. B. Greer, J. F. Fagan, E. H. English, C. A. Cunningham, W. R. Hunter, A. H. Davis, J. A. Jackson, G. W. Underhill, Hon. R. W. Johnson, R. S. Mason, M. D. Neely E. B. Bishop, E. Worthington, Oswald Pope, S. Mitchell, A. Fowler, S. O. Tarpley, Samuel Martin, James Norton, J. Thompson, R. T. Redmon, P. Little, S. Craig, E. P. Craig, E. H. Fletcher, E. Hickman, W. R. Sylvester, J. S. Peake. A. H. Rutherford, J. S. Horne, F. E. Patrick, J. M. M'Candy, D. P. Hughes, J. M. Rankin, Dr. Nash, D. C. Cross, E. Jones, W. A. Jones, S. Lauier, J. M'Garak, A. H. Phillips, J. W. Buckner, W. J. Jones, J. B. Finley, C. W. Campbell, H. B. Edmondsou, J. F. Barton, R. P. Tully, O. P. Lyles, G. Redmond, G. H. Redmond, J. C. Duncan, M. L. Johnson, J. B. Harris, M. L. Somerville, J. F. Wheeler, J. H. T. Marrie, Samuel Maxwell, S. D. Key.—60.

Georgia,.—Hon. W. C. Dawson, R. A. L. Atkinson, J. D Stell, E. P. Daniel, A. L. Borders, Oc. Cohen, J. B. Scriven, A. G. Bostick, A. R. Lawton.—10.

Illinois.—J. M. Woodward—1.

Indiana.—Hamilton Smith.—1.

Kentucky.—Richard Apperson, W. Watkins, W. Logan, L. L. Robinson, W. L. Vance. F. Roulboc, J. Eaker, Z. Eaker, R. C. Ford, W. C. Ford, J. R. Howard, G. E. M'Giunis, E. W. Crittenden, J. Edmondson, A. D. Kingman, E. H. Somers, J. Garvin.—17.

Louisiana.—J. W. Breedlove, J. C. Goodrich, F. W. Huling, J. C. Martyn, S, Andrews, S. W Oakey, J. Moore, V. Herman, C. R. Wheat, J. D. Foster, J. B. Bemiss, J. B. Leefe, J. S. Thrasher, Alexander Walker, F. A. Lumsden, F. Quarles, T. Wilson, W. B. Douglass, F. Walker, J. W. G. M'Gimpsey, J. A. Kelly, F. Oliver, W. T. Gober, S. T. Jones.—24.

Maryland.—J. W. Welsh, G. W. Betts, W. P. Smith, F. H. Jenks, Henry Mankin, C. G. Baylor.—6.

Missouri.—J. H. Lucas. L. M. Kennett, A. B. Chambers, F. P. Blair, jr., T. F. Purcell, A. Keyser, H. Cobb, F. V. Valla, J. E. Elder, T. B. Hudson, T. E. Bland, A. H. Gladsby, R. J. Lockwood, T. D. Day, E. M. Ryland, H. T. Chiles, John Hodges, W. Renshaw, J. J. Howell, J. A. Kasson, James Wood, J. Cannon, F. W. De Kantzen, T. F. Risk, A. Christy, H. L. Sloan, J. Bridges.—27.

Mississippi—G. T. Bryant, R. P. Dalton, J. H. Yerger, H. C. Adams, C. L. Robard, A. B. Bradford, R. W. Brohan, R. M. Gaines, W. Finley, S. S. Galloway, P. P. Starke, J. V. Wright, J. C. Jamison, G. H. Mitchell, General J. A. Quitman, Govr. H. S. Foote, J. H. Hackleton, H. Williamson, H. Harris, R. J. Malone, A. T. Caruthers, L. Simms, E. A. Thomas, J. Speedly, G. Wait, A. G. Carter, J. C. N. Robertson, W. T. Mills, W. Williamsou, W. F. Arent, J. Anderson, J. Balfour, T. Bradly, J. S. Byrne, W. C. Smedes, N. D. Colemau, M. Emanuel, R. H. Crump, H. W. Bowen, N. J. Watts, J. W. Vick, J. P. M'Connell, T. Rigeley, C. K. Marshall, L. Lewis, A. S. Kellogg, G. Fearn, M. Adams, R. Bell, R. Proffitt, J. L. Allcorn, J. Hardeman, W. W. Moore, G. B. Warren, N. R. Slago, J. N. Davis, J. J. Worsham, W. N. Brown, J. W. Clapp, G. P. Font, S. Oliver, J. P. C. Stanfield, C. Hudson, C. Clarke, T. M. Nash, P. Poindexter, R. Fletcher, C. W. Rozell, W. Mills, J. Robertson, D. S. White, F. M. White, F. Henderson, J. E. Murdock, W. S. Jones, W. Thompson, J. H. M'Cargo, C. L. Thomas, N. W. Williamson, W. T. Simpson, J. H. Andersou, W. A. Goodman. J. E. Carey, J. C. Holland, W. Arthur, H. R. Austin, J. B. Fant, D. Minor, R. S. Manning, J. Davis, J. Matthews.—92.

South Carolina.—E. W. Seabring, A. F. Browning, W. Gregg.—3.

Tennessee—Hon. John Bell, Samuel D. Morgan, Hon. F. P. Stanton, H. G. Smith, Willo. Williams, R. Topp, W. T. Brown, W. H. Drain, C. S. Wilcox, J. Elder, R. W. Humphreys, W. Stewart, R. Cobb, J. K. Walker, S. P. Walker, W. K. Poston, R. J. Cluster, S. J. Hays, W. E. Butler, J. E. R. Wray, J. W. Campbell, W. T. Haskell, J. N. Moon, B. M. Patterson, A. S. Rodgers, J. M. Williamson. J. Trigg, S. Tait, R. C. Brinkley, D. Park, J. Morelle, J. R. Mosely, W. A. Booth, J. S. Lyon, J. Boyce, R. R. Dashields, James Elder, J. T. Trezevant, H. L. Guion, L. Pepe, H. C. Walker, J. P. Caruthers, A. P. Meurillo, J. Meriwether, Charles H. Coffin, E. M. Apperson, W. Howard, S. Moseley, F. Titus, J. F. Jett, S. M'Clanahan, J. P. Pryor, J. H. M'Mahan, S. P. Bankhood, J. Dougherty, J. R. M'Clanahan, Miles Owen, R. A. Parker, A. B. Parker, C. B. Frazer, J. C. Farrington, J. H. Rawlings, B. Bland, H. J. Anderson, C. D. M'Clean, S. L. Gannanoy, B. M. Estes, J. A. Rodgers, H. M. Smith, H. J. Cannon, B. Ballard, T. W. Hunt, Rev. J. H. Otey, J. Foulkes, A. B. Taylor, J. Woodruff. W. Houston, J. N. Henkle, James Rose, H. F. Hill, Puun, J. K. Yerger, W. T. Avery, L. Shanks, E. M. Yerger, E. W. M. King, D. Laffarans, J. L. Laffarans, James Howard, W. H. Carroll, G. B. Locke, W. Coleman, R. V. Richardson, T. S. Ayres, F. H. Clarke, J. H. A. Somers, A. Wright, T. J. Turley, E. F. Watkins, R. C. Malone, T. H. Allen, W. B. Miller, J. N. Barnett, S. H. Lamb, W. Borbles, W. D. Ferguson, D. M. Leatherman, B. Graham, M. W. Lindsay, C. Buck, T. G. Smith. L. M. Campbell, James Young, F. Baxter, A. Miller, W. E. Irwin, A. H. Douglass, J. Pittman, W. V. Taylor, A. M. Hopkins, A. D. Witherspoon, W. B. Waldron, R. E. Orne, G. L. Holmes, E. Rayner, G. W. Smith, John Martin, J. M. Patrick, A. B. Dubose, S. S. Runbert, D. M. Currin, W. C. Dunlop, M. B. Winchester, E. H. Porter, J. Phelon, J. T. Laroque, James Wickersham, C. Kortrecht, G. Smither, C. Worly, W. Richardson, A. O. Harris, J. R. Ferguson, J. M. Walker, W. A. Williamson, H. F. Felton, J. C. Gillespie, W. T. Dougherty, J. M. Alexander, C. R. P. Byers, W. L. Boon, M. A. Haynes, J. M. Lea, John Overton, W. H. Long, J. B. Freeman, H. W. M'Carry, H. B. S. Williams, J. F. Hamlin, J. W. Lumkin, W. B. Hamlin, J. W. Elder, J. R. Woodfolk, H. J, Dupre, W. Wash, John Cobb, H. M. Wooten, W. J. Tuck, W. B. Greenlan, J. S. Harris, C. F. Fackler, W. P. Reans, Dr. Quintard, N. Rogland, J. W. Smith, F. Lane, J. Wildberger, D. C. Darley, Dr. Cole, A. J. Donaldson, J. W. Rayster, C. C. Cleans, W. M. Farrington, W. Annan, R. Patterson, R. L. Kay, H. T. Hulbert, A. M'Ginnis, J. Halstead, A. G. Underwood, W. Carr, C. Jones, H. D. Small, J. Boyd, W. Park, John Park, T. W. Wilkinson, H. Speed, George Fisher, George Robertson, J. L. Webb, E. W. Kinny, N. Honcott, J. I. Andrews, F. W. Smith, W. B. Means, J. L. Jones, E. Winston, W. W. Lea, J. N. Bradshaw, M. C. Cayco, P. Flaherty, J. D. Williams, J. E. Maxwell, H. F. Farnsworth, J. E. Merriman, C. W. Cherry, A. S. Caldwell, J. Shelby, J. B. Kirtland, S. M'Manus, J. R. Frayser, M. Gridley, S. Foulkes. S. Curtis, J. T. Leath, L. Trousdale, J. W. Fowler.—228.

Texas.—W. A. Peacock, J. H. Fowler, B. F. Hall, General Memucan Hunt. R. Broanax, W. C. Young, W. W. Wheatley.—7.

Virginia.—J. R. Ellis, J. Knote, Charles Ellis, J. M. Botts, —— Conarden.—5, Total number of delegates, 496.

Mr. Lucas, of Mo., moved that the mode of voting be now decided upon, and that each state have one vote.

Mr. H. G. Smith moved to amend, by giving each State as many votes as she has representatives in Congress.

Mr. Walker, of La., opposed the amendment, as being a departure from all precedents in like cases, and especially from those set by the Conventions held here in 1845 and 1849.

Governor Foote suggested that this delicate matter be referred to the chair.

Mr. Coleman, of Miss., moved to amend, by appointing the Vice-Presidents a committee to report on the mode of voting; and the resolution was adopted.

On motion of T. B. Starke, of Miss., it was resolved, that the rules of the House of Representatives of the U. S. be adopted for the government of this Convention, as far as practicable.

On motion of Mr. Hardiman, of Miss., the Convention adjourned, to meet again at 4 o'clock, P. M.

Afternoon Session.—The Convention met pursuant to adjournment.

The Hon. John Bell, in behalf of the committee under Mr. Coleman's resolution, reported the following resolution: Resolved, that on all questions which may arise in this committee, the vote shall be by states, each state casting one vote—which resolution was unanimously adopted.

Mr. Oakey, of La., presented the following resolution, which was agreed to:—Resolved, that the delegates from each State appoint two (2) of their own number to act as a general committee, who shall propose and submit to this Convention such business as they may deem suitable for its deliberation.

On motion of Mr. Oakey, the Convention took a recess of ten minutes, to enable the several state delegations to select their committee men under his resolution.

The Convention being called to order, the following names were reported as the general committee:

Alabama.—Lewis Troost, G. P. Bierne.
Arkansas.—A. Fowler, R. L. Mason.
Georgia.—J. W. Stell, A. R. Santlow.
Illinois.—J. M. Woodward.
Indiana.—Hamilton Smith.
Kentucky.—W. L. Vance, R. Apperson.
Louisiana.—J. B. Bemiss, W. R. Douglass.
Missouri.—L. M. Kennett, F. P. Blair, jun.
Maryland.—C. G. Baylor.
Mississippi.—W. C. Smedes, J. W. Clapp.
S. Carolina.—A. F. Brown, jun., E. Seabring.
Texas.—W. C. Young, W. M. Peacock.
Tennessee.—R. Topp, Willo. Williams.
Virginia.—Charles Ellis, J. R. Anderson.

Mr. Baylor then moved, that this committee have leave to retire and sit during the deliberations of the Convention.

On motion of Mr. Byrne, of Miss., the President was authorized to appoint a committee of three, to make arrangements for reporting and printing the proceedings of this Convention.

The President stated that he would appoint this committee to-morrow.

On motion of Mr. Kennett, of Mo., Gov. H. S. Foote, of Miss., was requested to address the Convention.

Governor Foote, in a brief but very appropriate manner, tendered his thanks to the Convention for the invitation, but begged to decline addressing it at length.

On motion of Mr. Lumsden, of La., tho Convention adjourned until nine o'clock, to-morrow morning.

Second Day, Thursday, June 7th, 1853.—Convention met pursuant to adjournment, when the journal was read and approved.

The President then announced, that he had appointed the following gentlemen as the committee on reporting and printing: R. Topp, of Tenn., A. B. Bradford, of Miss., and A. Walker, of La.

He also announced, that he held in his hand a note from the President of the Merchants' Exchange, politely tendering to the members of the Convention free use of the reading-rooms, during their stay in the city.

The President then declared that the first business would be the report of the general committee, if they were ready to report.

Mr. Coleman, of Miss., said the committee was then in session, and suggested the propriety of adopting the idea thrown out yesterday, of allowing any member of the Convention to present his propositions, &c., so that they might be acted upon at once, or referred to the general committee.

The President then said that any proposition was now in order.

The Hon. Judge Moore, of La., then submitted the following resolutions which, after an able exposition from him, were, on motion, referred to the general committee:

Resolved, That the construction of a rail-road direct from the Mississippi river to the Pacific Ocean, will be one of the most effectual and practical means of promoting and securing to the Southern and Western States a due share of the commerce of the United States.

Resolved, That Congress has the power to make a liberal grant of the public lands to aid in the construction of said rail-road, under the conditions heretofore stipulated in like grants, for the carrying of the mails, and transporting the troops and property of the United States.

General Hunt, of Texas, then addressed the Convention, giving an account of rail-road progress in Texas, &c.

Mr. Pope, of Tenn., suggested, that as the Rev. James H. Otey had been intrusted by a distinguished gentleman not present with some resolutions on a very important subject, he be invited to present them now, with such remarks as he might deem proper.

The President said, he knew it was the unanimous wish of the Convention to hear Bishop Otey, who then read the following resolutions, and accompanied them by a very able and eloquent address:

1. *Resolved,* That the free navigation of the Amazon is one of the most important questions of the age, and its accomplishment worthy of the best efforts of American statesmen.

2. *Resolved,* That the naval expedition sent by this government to explore the Amazon was an act worthy of the enlightened government of a free people; and this Convention hails with delight the enlarged and liberal views recently taken by our sister Republic of the South with regard to their Amazonian water-courses. The free navigation of the Amazon is theirs; they are right to claim it; let them go ahead and fear not.

3. *Resolved,* That the interests of commerce, the cause of civilization, and the mandates of high heaven, require the Atlantic slopes of South America to be *subdued and replenished.* That the river steamer and the free navigation of the Amazon are the principal levers by which that part of the world is to be raised up to the abode of a great, prosperous, and happy people. That, impressed with the importance of such a consummation not only to this country and to all the states of Christendom, but to the happy solution also of the great problem of human progress through the world, therefore, we, the people of the Mississippi valley and of the Atlantic slopes of North America, represented in the Convention, think fit to declare, that in our judgment the free navigation of the Amazon is the greatest boon that a commercial people can claim of the diplomacy of the age, and that we would be glad to see such a boon obtained peaceably at any price that it becomes a great nation to offer.

4. *Resolved,* That ——— ———, be appointed to invite, in the name of this Convention, the attention of the government to this subject, and to urge the importance of procuring the free navigation of the Amazon, and of opening commercial relations by steam and otherwise with the mouth of the river, and through it with the people inhabiting the banks of its tributaries.

Dr. Quintard, of Memphis, followed Bishop Otey, and gave some interesting statistics with regard to the rivers of South America, &c.

Before concluding, the general committee came in and made a partial report, as follows:

The committee charged with the duty of recommending to the Convention suitable subjects for its deliberation and action, respectfully represent that they have had under consideration the questions of direct trade; the construction of a railway from the Mississippi River to the Pacific Ocean; opening up commerce with the Valley of the Amazon; the removal of obstructions impeding the navigation of the Mississippi River and the improvement of harbors; the consummation of the negotiations with reference to the Tehuantepec route across the Isthmus; the encouragement of manufactures and mechanic arts, and the kindred questions tending to develop the resources of the South and West. They have as yet matured no resolutions with reference to these important questions, except those in regard to the improvement of the Mississippi River and central harbors. They ask further time for consideration upon the various objects mentioned.

Whereas, The important questions of deepening the channels at the mouths of the Mississippi, and the improvement of the rapids in said river, known as the Desmoines and Rock River Rapids, have already attracted the attention of Congress, and under appropriations made by it, competent engineers have made surveys and reports, showing that said improvements are practicable—and as these works have a most important bearing upon the interests of all the States lying upon this great river and its affluents—and the appropriations made by Congress are manifestly inadequate for the purposes desired, and disproportioned to the objects and results sought to be attained:

Be it resolved, That this Convention strongly urge upon Congress prompt and liberal action upon these subjects, and earnestly request that all the Senators and Representatives in Congress, from the States represented in this Convention, use their best efforts to procure at an early day the necessary appropriations for their accomplishment.

And, Whereas similar reports have been made by boards of engineers appointed by the government of the United States, which show the entire practicability of improving the harbors of Charleston, Savannah, Mobile, Baltimore and Richmond, and the estimates by them prepared for these purposes do not involve any very large outlay of money:

Therefore, Resolved, That this Convention also urge upon Congress speedy attention to these eminently meritorious claims upon the United States.

Dr. Quintard then concluded his remarks.

Mr. Pryor, of Tenn., moved, that the resolutions offered by Bishop Otey be then taken up, and that the blank in the 4th resolution, be filled with the name of Lt. M. F. Maury, of Washington City; which, on motion, was adopted with acclamation.

He then moved, that the resolutions be adopted by the Convention, with a reference to the general committee, which motion was unanimously adopted.

Mr. Bemiss, of La., then moved, that the report just made by the general committee be now taken up, and asked that it be read.

The Secretary read the report and resolutions.

Gen. Quitman, of Miss., moved, that the report and resolutions be taken up *seriatim*, and the portion referring to the obstructions in the mouth of the Mississippi be first disposed of.

This was opposed by Messrs. Keyser, Hudson and Kennett, of Mo., and by Mr. Lawton, of Geo.; and advocated by Messrs. Walker and Oakey of New-Orleans.

Mr. Walker, of La., then offered the following as a substitute for the first resolution of the committee:

Resolved, that the removal of the bar at the mouth of the Mississippi, so as to give easy and safe exit to the vast produce of the valleys of that river and its tributaries, and afford an access for the larger classes of ships engaged in the transporting of foreign goods for consumption, as well as for ships of war to be employed in the defence of the country, commends itself especially to the prompt attention and liberal action of Congress, and particularly to the earnest support of all Representatives of the West and South.

Pending the discussion of this resolution, on motion of Mr. Oakey, of La., the Convention adjourned until 4 o'clock, P. M.

SECOND DAY.—Afternoon Session.

The Convention met pursuant to adjournment.

Mr. Davis, of Miss., offered the following, as a substitute for the entire resolutions.

Resolved, That the improvements of the prominent commercial ports of entry on the Atlantic, south of Baltimore, including that city, and upon the Gulf of Mexico, including Galveston, according to their respective importance, be considered by the Convention as constituting the first class of subjects for which to ask the aid of the general government, and the improvement of rivers in the interior.

Mr. Walker, of La., here asked leave to explain, by saying that he was not opposing the resolutions of the Committee, but simply desired that each proposition be acted upon separately, so that it might stand or fall upon its own merits.

Mr. Blair, of Missouri, opposed any separation of the questions embraced in the resolutions.

Mr. Wheat, of Louisiana, deprecated this waste of time; he was for a division of the propositions, and called for General Quitman's motion.

Mr. Lucas moved to lay the whole amendments and substitutes on the table. The President decided this motion to be out of order.

The debate was continued by Messrs. Oakey, Hardeman, Bemiss, Platt, and Apperson; when the main question being on General Quitman's motion to divide the resolutions, the vote was called by States, and resulted as follows:

For division.—Virginia, Georgia, Maryland, Louisiana, and Texas—5.

Against division.—Alabama, Kentucky, Tennessee, Arkansas, Mississippi, Missouri, Illinois, and Indiana—8.

The motion to divide was thus lost.

On motion of Mr. Hunt, of Texas, "Galveston" was inserted in the resolution naming harbors, &c.

On motion of Mr. Apperson, of Kentucky, the resolution was amended by striking out the word "Richmond," and inserting "Norfolk."

Mr. J. T. Trezevant, of Memphis, then submitted the following resolutions in relation to the Pacific Rail-road, and, at his request, they were referred to the general committee.

Resolved, 1*st*. That a rail-road from the Mississippi Valley to the Pacific Ocean is demanded, not only by our individual and commercial wants, but our national necessities.

2. That so soon as the surveys recently ordered by Congress are completed, the general government should adopt such steps as will insure the construction of the main trunk of said road at the earliest possible period.

3. That as the general government could be expected to build only one main trunk, *that* should be located on the route, combining, in the greatest degree, the advantages of genial climate, cheapness of construction, and accessibility, at all seasons, from all portions of the Union.

4. That the general government should provide, by liberal grants of the public lands, for the construction of branches of this rail-road, starting from its eastern terminus, and running to Dubuque, (Iowa,) St. Louis, (Missouri,) Memphis, (Tennessee,) Vicksburg, (Mississippi,) New-Orleans, (Louisiana,) and Galveston or Indianola, (Texas,) thus giving to every portion of our Union, from the lakes to the Gulf, a fair and just participation in the benefits that will flow from a connection with this "World's Highway."

Mr. Byrne, of Mississippi, offered the following resolution, which was referred to the general committee:

Resolved, That as the best means of providing for the defence and permanent safety of our Western possessions, and to promote the general welfare of the nation, Congress ought to grant such aid as may be necessary to secure, as speedily as practicable, a continuous railway communication between the Atlantic and Pacific Oceans, by the shortest, cheapest, and best route that can be found.

Mr. C. K. Marshall, of Mississippi, offered the following resolutions, which, after some explanatory remarks, were referred to the general committee:

Whereas, the Mississippi and its chief tributaries drain an extensive and highly valuable portion of the Southern and Western States, the agricultural and commercial importance of which are incalculably great, and must increase with their growing social, political and religious interests in all coming time; and inasmuch as our present welfare, and our obligations to posterity alike require us to adopt such measures for the permanent establishment of commercial and agricultural enterprises as will insure safe investments therein, which necessarily involves the draining of all alluvial lands, and their protection from the floods of our teeming rivers; and inasmuch as the attention of the citizens of this Southwestern basin has long been called to these matters; and as a universal conviction prevails that any measure likely to advance the objects should be employed by the general government; therefore

Resolved, That in the opinion of this Convention, it is the duty of Congress to make arrangements for the most thorough investigation of all the sources of information, and for obtaining all facts having a tendency to throw light upon the peculiar phenomena and laws governing the waters of the Mississippi river and its tributaries, by which their navigation may be rendered more safe, certain and regular, the adjacent lands be redeemed, and the country preserved from inundation.

2. *Resolved*, That this Convention respectfully recommends to Congress, that among the measures calculated to advance the above objects, and facilitate the schemes already undertaken, the government should send abroad a corps of competent engineers and hydrographers to investigate the history and phenomena of the rivers of the old world delta, which may resemble that of the Mississippi, and furnish reports upon all matters that may contribute to the promotion of the objects contemplated.

3. That, in furtherance of the objects sought, it is highly important that a system of permanent hydrometers should be established by the general government at several of the principal towns and cities on the banks of the Mississippi and its chief affluents, by which the actual stages may be accurately ascertained from day to day; and that the depths of their channels be regularly sounded, and the changes on their banks marked and recorded by competent persons, who shall report to the proper department of the government from time to time.

Dr. Merrill, of Memphis, offered the following resolution, which was referred to the general committee:

Resolved, That in view of the importance of the diffusion of intelligence generally, as the foundation of Republican institutions, and as the basis of higher seminaries of learning, it be strongly recommended to the Legislatures of the Southern and Western States to adopt such systems of common school education as will tend to secure, for all future time, the advantages of sound literary and moral instruction, to the growth of their whole white population, without the exaction of tuition fees.

Mr. Kasson, of Missouri, offered the following resolution, which was unanimously adopted without a reference to the committee:

Resolved, That in the opinion of this Convention, it is of great importance that such State should establish a bureau of statistics under the special superintendence of a statistician, in which shall be collected all facts touching the capability, productions, industry, arts, wealth and population of the States, the superintendent of which should, at each session of the Legislature, report thereto such facts and suggestions as he may think expedient, or they may demand.

On motion, the Convention adjourned till 9 o'clock to-morrow morning.

THIRD DAY.—June 8, 1853.

Morning Session.—The Convention met pursuant to adjournment.

The journal being read and approved, the following resolution was agreed to:

Resolved, That all long documents. instead of being inserted at length upon the journal, shall merely be referred, and that they be published in an appendix.

Judge Moore, of La., rose to correct an impression on the minds of some gentlemen in the Western States, relative to the commercial charges of New-Orleans. He defended the New-Orleans merchants, and believed their charges generally as reasonable and as just as in any other city.

Mr. Cohen, of Georgia, introduced the following resolution, which was adopted:

Resolved, That at the close of this day the Convention adjourn *sine die*.

Mr. Baylor, of Maryland, then offered the following resolution, and addressed the Convention:

Resolved, That direct trade, as a commercial consequence in detail, to be practically demonstrated, carried out, and established, with the questions immediately connected with it, is a subject of importance and general interest to the whole country; and as such, is a proper matter for the consideration and action of this Convention.

During his address, the general committee came in, and through their Chairman, Hamilton Smith, Esq., reported the following resolutions, and begged to be discharged:—

THE PACIFIC RAIL-ROAD.

Resolved, That a rail-road from the Mississippi Valley to the Pacific Ocean is demanded, not only by commercial and individual interests, but by our national necessities.

Resolved, That as soon as the surveys, recently ordered by Congress, are completed, the general government should adopt such steps as will insure the completion of the main trunk of said road at the earliest possible period.

Resolved, That as the general government could be expected to construct only one main trunk, it should be located on that route which scientific explorations shall show combines, in the greatest degree, the advantages of genial and temperate climate, fertility of soil, cheapness of construction, and accessibility at all seasons from all portions of the Union.

Resolved, That in the opinion of the Convention, it is right, and expedient and proper, that the general government should make large donations of the public lands to the different states, bordering on either side of the Mississippi, to enable all sections of the Union, however remote, to connect themselves with the main trunk.

TEHUANTEPEC RAIL-ROAD.

Whereas, The project of opening a communication between the Atlantic and Pacific oceans by rail-road, across the Isthmus of Tehuantepec, recommends itself to the warm support of the whole Union, and particularly to that of the Western and Southern States, by its great practicability, the facility and cheapness of its construction, as well as the short time required for its completion, thus affording to the commerce and travel of not only the United States, but the world, a cheap and easy access to the Pacific coast:

Resolved, therefore, That our Representatives in Congress be requested to press upon the government the necessity of bringing to a favorable termination, as soon as possible, the negotiations pending in regard to the right of way across said isthmus, and that they be also instructed to maintain, by all legitimate, constitutional means, the rights of American citizens in the grants made by the Mexican government.

DIPLOMACY IN COTTON.

Resolved, That the attention of our Senators and Representatives in Congress be called to the propriety of bringing before the administration the importance of making the cotton interest a subject of instruction to our foreign commercial and diplomatic agents.

NAVIGATION OF THE RIVERS OF SOUTH AMERICA.

Resolved, That this Convention highly approves the steps which have been taken by the United States government to obtain the fullest information in respect to the countries bounding the Oronoco, Amazon and La Plata rivers, with a view to opening up the trade of that vast region to American enterprise; and the Senators and Representatives in Congress, from the States represented in this Convention, are respectfully requested to use all proper means, by the establishment of mail steamers from the port of New-Orleans, to suitable points on the Southern American continent (or in such other mode as may be deemed most expedient,) to secure to the people of the United States the advantages of trade and intercourse with the regions referred to.

Resolved, That in the opinion of this Convention, Lieutenant Maury deserves the thanks of the American people, for the able manner in which he has advocated the proposed project of uniting, by the ties of commerce and common interest, the great valley of the Mississippi with the tropical countries of our sister continent, and we trust his efforts will not be relaxed until the great end in view is fully consummated.

DIRECT STEAM COMMUNICATION WITH EUROPE.

Resolved, That this Convention regards the establishment of a direct communication by steam between our Southern ports and Europe, and the encouragement and protection of this system by the national government, connecting therewith ample mail facilities, as a necessary feature in the commercial independence of the South and West.

ADDRESS TO CONGRESS.

Resolved, That a committee of five be appointed by the President of this Convention, to prepare an address to the Congress and people of the United States, on the topics embraced in the action of this Convention—invoking their attention to its proceedings and action, and enforcing them upon their consideration; and that this address be published as an appendix to the proceedings of this Convention.

ADDRESS ON THE MANUFACTURE OF COTTON.

Whereas, The Southern States of this Union now have, and for a long period must have, a virtual monopoly in the production of raw cotton of commerce; and whereas it is of vast importance to these States, that their great staple should be sent abroad in its most valuable form; and whereas, it is believed that this staple can be wrought up with extraordinary cheapness on and near the fields of its growth, therefore—

Be it Resolved, That the President of this Convention appoint a committee of five members, who shall be requested to prepare for publication and distribution, particularly in the manufacturing districts of Europe, a full report of the peculiar facilities offered by the Southern and Western States for the manufacture of cotton, and that this report be published as a part of the proceedings of this Convention.

COMMON SCHOOLS.

Resolved, That this Convention earnestly recommends to the citizens of the States here represented, the education of their youth at home as far as practicable; the employment of native teachers in their schools and colleges; the encouragement of a home press; the publication of books adapted to the educational wants and the social condition of these States, and the encouragement and support of inventions and discoveries in the arts and sciences, by their citizens.

HYDROSTATIC GUAGES ON THE MISSISSIPPI.

Whereas, The investigation of the laws which regulate the rise and fall of the

Mississippi river and its tributaries, and the adoption of some system by which the great valley of the Mississippi may be protected from inundation. and the navigation of the western waters be best perfected and secured, are subjects of the deepest interest and importance to the whole Western and Southern country. Therefore,

Resolved, That this Convention respectfully recommend to Congress, that among the measures calculated to advance the above objects, and facilitate the schemes already undertaken, the general government should appoint a special corps of competent scientific engineers, to investigate the laws which govern the Mississippi and its tributaries, to devise the best means of improving the navigation of these rivers, and of protecting their lands from overflow; if necessary, to send abroad a similar corps of scientific engineers to examine the systems of improvement adopted in other countries, and to report upon all matters connected with these subjects.

Resolved, That in furtherance of the objects sought, it is highly important that a system of permanent hydrometers should be established by the general government. at several of the principal towns and cities on the Mississippi and its chief affluents. by which the actual stages of their water may be accurately ascertained from day to day; that the depths of their channels be regularly sounded, and the changes going on upon their banks marked and recorded by competent persons, who shall report to the proper department of the general government from time to time.

All of which resolutions being read, they were, on motion, received as the report of the committee, and the committee discharged.

Mr. Baylor then resumed his remarks, and in conclusion, moved the adoption of his resolution, which was agreed to.

Mr. Huling, of La., offered the following resolution, which was unanimously adopted.

Resolved, That this Convention, entertaining a profound respect for the Hon. John Bell, and desiring that this body and the public generally, should enjoy the opportunity of being instructed by him in relation to the important topics introduced before the Convention, do therefore request him to address the Convention upon such of the topics as may suit his pleasure.

The hon. gentleman rose and stated, that he felt under great obligations for the honor conferred upon him, and would address the Convention at some opportune moment.

Mr. J. S. Thrasher, from Louisiana, then offered the following:

Whereas, Ten thousand American ships, laden with the products of Southern and South-western States, and their returns to the value of three hundred millions of dollars, pass annually through the narrow strait between Cuba and Florida; and as this commerce must inevitably increase with the increasing population of the great valley of the West, and the opening of the Isthmus routes to the Pacific; and

Whereas, the island of Cuba, by its northern ports, which lie immediately upon this sole highway of the commerce of nations, commands its ingress and egress, while within a circle of two thousand miles diemeter there is no port, except in Cuba and the adjacent isles, which can serve as a naval station; and our entire southern coast from Norfolk to Cape Florida, and thence through the whole Gulf of Mexico, is without a first class American port:

Be it resolved, That we deem the acquisition of the island of Cuba important to the proper protection of this great and constantly increasing commerce, and to the security of our southern waters, and we urge its consideration upon the people and government of our country as a question of national necessity and of national supremacy.

On motion, the resolutions were laid on the table.

The President said, that the first thing in order would be to take up the resolutions of the general committee, as reported.

Gen. Quitman, of Miss., moved that the resolutions on the Pacific Railroad be first taken.

The question being on their adoption, Mr. Keyser moved to amend, by adding the words, "and experience," after the words "scientific explorations."

Mr. Trezevant, of Tenn., opposed the amendment, upon the ground that our best experience would be derived from these "scientific explorations;" and that in locating in a great work like this, we must be governed by the compass and the level, rather than by *buffalo tracks.*

Mr. Smedes, of Miss., also opposed the amendment, insisting that we yet had no "experience," and would have none reliable until these surveys were made.

The amendment was lost.

Gen. Quitman, of Miss., moved to amend the 3d resolution, as follows:—"That the main trunk should be located, &c." He thought the great object could be accomplished, without saying the government should build the main trunk. He was opposed to increasing government patronage, and to this road being built directly out of the funds of the treasury.

The Hon. Jno. Bell here briefly addressed the Convention in opposition to these views of Gen. Quitman. He believed our "national necessities," as the resolutions declared, would be a legitimate reason for a direct appropriation from the treasury, in the construction of this great work of union, protection and defence.

Mr. Smedes, of Miss., preferred the original resolutions.

The debate was continued by Messrs. Bell, Hunt, Quitman, Coleman, and others; when, upon the vote on the amendment being taken, it was adopted.

Mr. Blair, of Mo., moved to add the word "control," before the word "route," in the third resolution. His motion was advocated by Messrs. Keyser and Kasson of Mo., and opposed by Mr. Lawton of Geo., and Mr. Smedes of Miss.

The motion was lost, Missouri voting for it, and all the other states against it.

Mr. Kasson, of Mo., moved to strike out the word "genial," before the word "climate," in the third resolution, and insert the word "appropriate."

He thought the term "genial," applied more to the latitude in which the *travelling* would be pleasant and agreeable; whereas "appropriate" referred to a latitude suitable for the location of a road.

Mr. Trezevant, of Tenn., opposed the amendment, and thought the term "genial climate," taken in connection with the other "advantages" enumerated, had a direct reference to the *practicability* of the route; being one of the elements required to give it a claim over any other route that may have no "genial climate."

The motion was lost.

Mr. Keyser, of Mo., moved to insert the word "temperate," after the word "genial," which was agreed to.

The resolutions, as amended, were then unanimously adopted.

The resolution on the Tehuantepec Rail-road was then taken up, and Mr. Kasson addressed the Convention in a very able manner in opposition to the scheme, as one tending to place under the exclusive influence and control of the northern cities a commerce we are seeking to establish with Asia; and also, most likely to injure the great project which had just received so unanimous an endorsement from the Convention.

Mr. Bemiss, of La., here rose to address the Convention, when, on motion, an adjournment was carried, till 4 o'clock, P. M.

THIRD DAY.—June 8, 1853.

Afternoon Session.—Convention met pursuant to adjournment.

Mr. Bemiss, of La., having the floor, advocated the Tehuantepec project in a very able manner, claiming for it the merit of being the shortest and cheapest route to the Pacific, and the one likely to be completed soonest

Even after the construction of the Pacific Rail-road, it would be the route for all heavy and bulky articles of commerce.

Mr. Kasson, of Mo., replied, reviewing and enforcing his former arguments.

Mr. Clapp, of Miss., then addressed the Convention in a very forcible and eloquent manner, in favor of the resolutions, and Mr. Blair, of Mo., followed in opposition.

Gen. Quitman, of Miss., hoped the President would inform the Convention with his views upon the question, as it was one of national importance, so far as pending negotiations could make it so.

The President briefly addressed the Convention, advocating the resolution, as it asked Congress to bring to a favorable close our negotiations about this matter; and to maintain by all legitimate and constitutional means the rights of American citizens in relation to that question.

If it should compete with any other route, we are not here to oppose it on that account. Rather, we are here to incite each section of our unsurpassed South and West to a generous and spirited rivalry.

The question then coming up on the adoption of the resolution, the vote was as follows:

Ayes.—Alabama, Arkansas, Georgia, Indiana, Illinois, Kentucky, Louisiana, Maryland, Mississippi, South Carolina, Tennessee, Texas and Virginia. Nay.—Missouri.

The resolution was adopted.

The resolutions relative to the manufacture of cotton were then taken, and after a few lucid and able remarks from Mr. Smith, of Indiana, were unanimously adopted.

The resolutions on the navigation of the Amazon, &c., were next called up and agreed to.

The resolution upon education being next in order, Dr. Merrill, of Tenn., offered as a substitute the resolution submitted by him yesterday.

The question being on the adoption of the substitute, it was rejected, and the resolution of the Committee agreed to unanimously.

The resolution relative to our cotton interests abroad were then taken up, and on motion of Dr. Wilcox, of Tenn., amended, by adding the words " and tobacco," after the word " cotton."

The resolution thus amended was then passed.

On motion of Mr. Coleman, of Miss., the resolution to adjourn *sine die* at the close of this day was reconsidered.

On motion of Mr. Apperson, of Ky., the President was authorized to appoint a Committee of five members as a Finance Committee.

The President appointed Messrs. Apperson, of Ky., Trezevant, of Tenn., Bemiss, of La., Kennett, of Mo., and Coleman, of Miss.

The resolutions of the general committee on hydrometers, &c., on the Mississippi, were then unanimously adopted.

Mr. Browning, of South Carolina, then moved, that when this Convention shall adjourn, it adjourn to meet at Charleston, S. C., on the second Monday in February, 1854.

Mr. Bell advocated the resolution.

Mr. Hudson, of Mo., said that the second Monday in February was too soon for the people above St. Louis; that navigation could not be open as soon as that, he having known the Missouri River closed up with ice as late as the 1st of April. He hoped some later day would be named.

Mr. Browning agreed to change the time to the second Monday in April, 1854.

Mr. Oakey, of La., moved that the Committee adjourn to New-Orleans instead of Charleston, and Mr. Walker advocated his motion.

Mr. McGimpsey moved to amend by inserting Baton Rouge.

Pending this discussion, the Convention adjourned till 9 o'clock to-morrow morning.

FOURTH DAY.—Thursday, June 9th, 1853.

Morning Session.—The Convention met pursuant to adjournment, when the journal was read and approved.

The President announced that he desired to appoint the committees to prepare the address to Congress, &c., and on the manufacture of cotton, and desired that each State delegation might furnish a name that he might select the committees.

Mr. Apperson, of Ky., offered the following resolution, which was adopted:

Resolved, That each member of this Convention pay the sum of $2 50 towards paying the expenses of reporting and printing the proceedings of this Convention; and that the delegates from each State pay over to their Chairman the sum collected for that purpose, who shall hand the same over to J. T. Trezevant, of Tenn.

Mr. Browning, of South Carolina, called up his resolution relative to adjournment, when Mr. Walker, of La., renewed his motion to strike out Charleston and insert New-Orleans.

Some spicy passages at arms here occurred between Mr. McGimpsey, of Baton Rouge, and Mr. Walker, of New-Orleans, which afforded some amusement to the Convention, as it was a relief from the gravity of its more serious and constant labors.

Mr. Watkins suggested that the proper place for the next Convention would be Louisville.

Mr. Coleman, of Miss., preferred the adjournment to New-Orleans, but as Charleston had given the Convention an official invitation to adjourn there, he felt it due to the courtesy of her citizens to adopt Mr. Browning's resolution.

Mr. Lawton, of Geo., said that but for that reason he should have named Savannah; and he moved that the time be December, 1854, as we could not know what the next Congress would do if we met in the spring.

Mr. Byrne, of Miss., moved that a Committee of one from each State be appointed, who shall call together this Convention at such time and place as they may think proper.

Mr. Bemiss thought June, 1854, the best time, as we could then know what Congress shall have done.

The debate was continued by Messrs. Lawton, Walker, Coleman, Kennett, and others, all of whom, save Mr. Walker, advocated the adjournment to Charleston.

Mr. Ellis, of Va., here rose, and announced that the Virginia delegation had nominated the Hon. J. M. Botts, who had just arrived, as their Vice-President.

The hon. gentleman was then invited to a seat on the stand.

The resolutions offered by Messrs. Byrne, Walker, and McGimpsey, were then severally rejected, and the resolution of Mr. Browning, as amended, was unanimously adopted.

Mr. Coleman, of Miss., then moved that the Convention hold its next session in New-Orleans after its adjournment at Charleston. The motion was lost.

On motion of the Hon. Mr. Bell, of Tenn., the resolution in relation to the improvement of harbors was reconsidered, and the word "Richmond" inserted in place of the word "Norfolk," and the words "inlet and harbor of Wilmington" were added.

On motion of Mr. Cobb, of Mo., the following resolutions were adopted:

Resolved, That the Mississippi Valley Rail-road, running from the city of New-Orleans to the Falls of St. Anthony, is a measure highly conducive to the prosperity of the South and West.

Resolved, That the Congress of the United States, while granting public land to various rail-roads running east and west, be memorialized to make a liberal grant to the various States along the line for building the Mississippi Valley Rail-road.

Mr. Bishop, of Arkansas, introduced the following resolutions:

1. *Resolved*, That, in view of the immense foreign emigration to this country, we suggest the propriety of obtaining all territory adjoining or contiguous to the United States, by treaty negotiation or purchase, at not too great cost, as early as possible.

2. *Resolved*, That Congress purchase from the Cherokee nation 800,000 acres of land, at 62½ cents per acre, with 6 per cent. interest from the date of its reception from the United States by the Cherokees at that price during its next session, and pay for the same out of any money not otherwise appropriated during the year 1854.

3. *Resolved*, That Congress propose to the Indian tribes, (Cherokees, Choctaws, and Creeks,) admission into the American Union as territories or States, and that each native Indian have allowed him 160 acres of land.

The resolutions were laid on the table.

Mr. Marshall, of Mississippi, offered the following:

Resolved, That amongst the most important measures necessary to the success of our educational interests, is the establishment by the several South and South-western States of High Normal Schools, for the free admission of such persons, both male and female, as may wish to devote themselves to the profession of teaching within their borders; and we most respectfully urge this subject upon the attention of the governors and legislatures of the said States.

The resolutions were adopted unanimously.

By invitation, and in compliance with his previous announcement, the Hon. Mr. Bell then addressed the Convention; but, owing to extreme debility, resulting from indisposition, he was compelled to suspend his remarks much sooner than was anticipated, and greatly to the disappointment of the dense crowd who listened to him.

The Hon. Mr. Botts, of Va., was then called for, and responded in a few general remarks, briefly glancing at the labors of the Convention, which, on his arrival, he found brought to a happy conclusion.

Mr. Walker, of La., here moved to take up the resolutions of Mr. Thrasher, relative to Cuba; and the vote being called by States, resulted as follows:

AYE—None.

NAYS—Alabama, Arkansas, Georgia, Indiana, Illinois, Kentucky, Maryland, Mississippi, Missouri, South Carolina, Tennessee, Texas, and Virginia.—13.

Louisiana did not vote.

Mr. Lawton, of Geo., in casting the vote of his State, said, he was instructed by his co-delegates to say, that no discourtesy was intended to the gentleman who offered the resolutions; but they deemed it highly impolitic to introduce such questions into the deliberations of this Convention.

The Mississippi, Alabama, and Tennessee delegations made similar declarations, and said they should be happy to hear Mr. Thrasher on some other more appropriate occasion.

The President handed to the Secretary the names of the gentlemen whom he had appointed on the two Committees.

ON THE ADDRESS TO CONGRESS, ETC.:—

J. T. TREZEVANT, of Memphis,
L. M. KENNETT, of St. Louis,
N. D. COLEMAN, of Vicksburg,
J. P. SCRIVEN, of Savannah,
T. P. BEMISS, of New-Orleans.

COMMITTEE ON MANUFACTURE OF COTTON, ETC.

Hamilton Smith, Cannelton, Ind., **C. G. Baylor**, Washington City,
S. D. Morgan, Nashville, Tenn., **A. Fowler**, Little Rock, Ark.
W. Gregg, Charleston,

Mr. Kennett, of St. Louis, then offered the following:—

Resolved, That the members of this Convention tender their cordial thanks to the Committee of Arrangements, and to the citizens of Memphis generally, for the kindness and hospitality extended to them during their session in this city.

Which was adopted by acclamation.

Mr. J. K. **Yerger**, of Tennessee, offered the following resolution, as an amendment to a resolution of thanks to the President:—

Resolved, That the thanks of the Convention be tendered to the Hon. Wm. C. Dawson, President of the same, for the very able, courteous and impartial manner in which he has discharged his arduous duties throughout, wishing him health, long life, and success in *all* his undertakings.

The President, calling Mr. Bell to the chair, returned his acknowledgments in a very chaste and appropriate address; and said he hoped this was but the beginning of those interesting, pleasant, and social re-unions, which the citizens of the South and West should foster and encourage, as the best means of securing the various interests and strengthening the many ties which should bind them together as one great people.

Mr. Huling. of La., moved, That the thanks of the Convention are due and are hereby tendered to the Secretaries and Assistant Secretaries of this Convention, for the prompt, cheerful, efficient and satisfactory manner in which they have discharged their respective duties. Which was adopted unanimously.

Mr. Byrne, of Miss., offered the following resolution, which was enthusiastically adopted:—

Resolved, That the President of this Convention be respectfully requested to express to the ladies who have graced our deliberations with their charming presence, our high sense and just appreciation of the honor they have conferred.

In compliance with this resolution, the President turned to the assemblage of beauty on his right, and for a few moments addressed them in his own peculiarly happy style, gracefully attributing to their ever-welcome presence all the order and harmony which had characterized the deliberations of this vast body. He trusted he should meet them all at Charleston, next April, there to guide with an unseen hand, and to encourage with their smiles, the glorious work in which the South and West had so proudly embarked.

On motion of Mr. M. Henderson, of Miss., the Convention adjourned, to meet at Charleston, S. C., on the second Monday in April, 1854.*

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* We shall hereafter make some extracts from the speeches made at the Convention, and insert the reports of final committees.

Art. VI.—RELATION OF MASTER AND SLAVE IN LOUISIANA AND THE SOUTH.[*]

In Louisiana we have a population of 517,839 persons. Of these, 255,416 are whites; 244,786 are slaves, and 17,537 are free negroes. The white and black population are very nearly equal. From an examination of the population tables made out for the convention that formed our new constitution, I find that there are more blacks in proportion to the white population in this than in any other judicial district of the state. This district is composed of the parishes of Tensas, Madison and Carroll. In Tensas there are 900 white persons and 8,138 blacks, that is, about nine blacks to one white person. In Madison the proportion is about six blacks to one white person, and in Carroll nearly three blacks to one white person.

This is a great difference, and it imposes upon grand jurors extreme vigilance in seeing that the laws of the police of the parish are properly enforced. Slavery, that is, the whole or partial deprivation of particular individuals of certain rights, has existed in all ages and nations. It is implied to a certain degree in the very idea of government; and whether it be the government of one man over all his fellows, or of a great many different men over their fellows, and whether the authority be exercised in the relation of state and subject, father and child, master and apprentice, or master and slave, it varies only in degree. In each case, men, by their birth, or from circumstances over which they have no control, incur on the one side dependency, and on the other authority. Now, there are no rights without corresponding duties; and the right of property in the labor of another, accompanied with obedience and submission, imposes at the same time the duty of protection and good government. In proportion as these rights are recognised and these duties discharged, these relations of state and citizen, parent and child, master and apprentice, and master and slave, are attended with blessings, or the reverse. The relation of master and slave, along with these other relations, existed before the revolution in each of the thirteen colonies. England introduced the negro into the other States against the remonstrances of the colonists, just as France did into Louisiana. We have been born into existing institutions, and assumed with the other obligations those resulting from the existence of slavery in our midst. We must discharge them. The three million Africans in this country are elevated far above the naked heathen their ancestors were, when first landed on these shores.

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[*] From the charge of the Hon. John Perkins of Louisiana, to the Grand Jury of his Circuit, a copy of which has been kindly furnished us.

They have been in a degree civilized and christianized.—When kept from idleness and drink, protected in their rights, and treated as the law requires, their condition compares favorably with the laboring class of any other country. When deprived of these guarantees, their condition is pitiable indeed. There has been so much unjust abuse of the slaveholder, and such scandalous misrepresentations of the laws of Louisiana with reference to the treatment of slaves, that I can understand how difficult it is for you, as grand jurors, to preserve such feelings of indifference in the midst of denunciation, as to enforce the statutes of our State for the protection of the negro, with the zeal your natural impulses would prompt. You should recollect, however, in the words of a distinguished judge of South Carolina, (Judge O'Neal,) "that the first law of slavery is that of kindness from the master to his slave," and that it is as much your duty to protect the negro from the evil effects of fanaticism, as from anything else. He is our dependent, and looks to us for protection; and interest and humanity both require that kindness be enforced and inculcated by law. So considerate is the law of Louisiana on this point, that it makes it the duty, not only of every judge and grand juror, but of every private citizen to whose knowledge the ill-treatment comes, to report it at once to the nearest magistrate, whose duty it is to keep himself informed of the treatment of the negroes within his district, and enforce, " by every means in his power," the humane provisions of our law. As this court is given especial jurisdiction in much that concerns the police of this class, and is particularly required to bring to your notice certain statutes, I would remind you of that one affixing a penalty to the introduction into the State, or the subsequent sale, or purchase of a "*Statu Liber*," or one who is entitled to his freedom after a certain period—or of one who has been convicted of a capital crime, or who has ever been accused of insurrection, or who has resided in any county of any State where there has been an insurrection within two years.

Self-protection requires that this statute be rigorously enforced. It was passed at a time when public attention was alarmingly directed to the subject, and a necessity for it still exists.

The first legislature that met in this State passed a law, that negroes should be well fed and clothed; comfortably housed; taken care of in sickness, (" with temporal and spiritual care;") supported in their old age; not brutally punished, nor cut nor mutilated, nor sold away from their children when no longer able to work; nor a mother separated from her child under ten years of age; that they should have their Sundays free, or if made to work on that day, be paid for their labor. Nearly half a century has passed, and these provisions are still the law of Louisiana. They have been sanctioned by decisions of our Supreme Court, been enforced by juries, and have become so far incorporated into public sentiment, that scarce a greater reproach can be made a citizen than that of cruelty to his slaves. For although our law regards negroes as property, it also deals with them as human beings; and one of the most beautiful decisions of the late Supreme Court (delivered by Judge Preston) declares the slave to be the property of the master for lawful, "not for immoral or inhuman purposes." In the newspapers of this State, so far back as 1806, there are advertisements of the sale of negroes by public authority, because of ill-treatment from their owners.

To make however the humane provisions of our law effective, it is necessary to enforce rigidly those statutes that require a free man to reside permanently as overseer on every plantation; that permits no one to receive articles for sale or deposit from a slave, or to sell to or buy from him anything without the written consent of the master; nor under any pretence whatever to give or sell him liquor. I call your attention to a most stringent law on this subject passed last year.

There are severe penalties in our law against the hiring of a runaway, or the concealing, or aiding to conceal a negro from his master; against the persuading or carrying off a negro, or the aiding or advising another person to carry one off; against any one who shall, by word or action, or in any way whatever, encourage or advise a slave to insurrection against his master or the government; or who shall write or distribute anything tending to discontent among the free colored people, or insubordination among the slaves; or who shall in public, from the bench, the pulpit, or the bar, or in conversation, public or private, use language, signs or actions having this tendency; or shall knowingly be instrumental in bringing into this State any papers, pamphlets, or books, incendiary in their character; or who shall teach, or permit or cause to be taught, any slave in this State to read or write.

This last statute, opposed to the spirit, and unknown to our early legislation, and comparatively of modern date, it is my duty to bring to your especial attention. I do so, but with pain at the fact of the unwise agitation in the free States having caused its enactment. In this connection I would remind you of the statute against idle, wandering white men in our midst, without any visible calling, or honest means of support, or any one to vouch for character.

Art. VII.—MISSISSIPPI BONDS.

No. I.

[In the June number of the Review we published some interesting statistics of the Bank liabilities of Mississippi relative to the question of the repudiated bonds which have been so much in discussion. As our figures referred to the Planters' Bonds only, they have induced the following contribution relating to those of the Union Bank. It was always our wish to discuss this subject fairly in the Review, and to open its pages to the advocates of either side. At this period of the progress of the South, when she is embarking in so many great enterprises, her credit abroad is of the most vital consequence, and everything likely to affect, or which may have affected it, should be carefully weighed and understood.]

In the month of June, 1838, the State of Mississippi issued $5,000,000 of bonds to the Union Bank of Mississippi, under the seal of the State, and signed by the Governor and State Treasurer. These bonds were sold to Mr. Biddle, on 1st August, 1838, at par. The payment for them was made in five instalments of $1,000,000, on the 1st November, 1838, and 1st January, 1st March, 1st May, 1st July, 1839.

About $2,000,000 of these bonds were sold in Europe, through the agency of the United States Bank, and the remainder pledged with other state stocks, as a security for money borrowed in England, France, and Holland. The sale of the bonds was made, and the money received by the Union Bank, which was appointed by the State, for such purpose; but the State has refused to acknowledge the debt, or pay the interest on it. There is no dispute in regard to these facts, or any doubt that the five millions was actually received by the State of Mississippi. The only reasons advanced to excuse the State from paying the bonds are, that some formalities were not observed, or that the Union Bank, acting as agent for the State in the sale of the bonds, did not act upon some of the conditions which had been laid down for regulating the sale. The conditions here alluded to are, that the bonds were restricted to be sold for not less than par value; and while it is acknowledged that the sale was made at par, yet as the instalments were paid at fixed periods after the sale, and interest was accruing on the bonds in the meantime, there was a loss which reduced the price below par. The amount of this loss has been differently estimated at from $130,000 to nearly $200,000. This condition of fixing par as the lowest rate for the sale of the bonds is in the second act, that of February, 1838, which we shall presently find is denied to be authoritative. The formalities above spoken of are brought forward as of more importance.

By the constitution of Mississippi, no debt can be created without the sanction of two successive legislatures. The act to charter the Union Bank, and authorize the issue of the bonds, for the state capital in the Bank, did pass through the two successive legislatures of 1836 and 1838, and all the prescribed formalities were observed.

By that act, passed in January, 1838, the subscription of the State towards the bank's capital was to be equalled by a like amount of subscription by private individuals. By a supplementary act, which passed in February, 1838, the clause relating to the private subscription was repealed; and although nothing was said in it relating to the bonds, it is contended that such an alteration required the sanction of two legislatures also. This objection was not brought forward till more than two years after the sale of the bonds; and it is evident that no such opinion existed at the time; for we find in the message of Governor McNutt to the legislature, on the 8th January, 1839, that he states all the terms of the sale of the bonds, asserting that the bank had not obeyed the directions laid down for the sale, as they had sold them below par; but, at the same time, he distinctly asserts the State's liability for the bonds.

This is a point of some importance; because only the two first instalments, of $1,000,000 each, were then paid, viz.: on 1st November, 1838, and 1st January, 1839; so that the progress of the contract could easily have been stopped. But, after this publication of all the facts of the sale, the completion of the contract was allowed, and the remaining instalments of $1,000,000 each were paid on 1st March, 1st May, and 1st July, 1839. After this, in the same Governor McNutt's message of January 7th, 1840, he again asserts the liability of the State for the bonds; and it was not till the 6th January, 1841, that he repudiated the bonds; and, upon his doing so, both houses of the legislature passed resolutions, asserting the State's liability, and protesting against repudiation, as a disgrace to the honor and character of the State.

Art. VIII.—THE RAILWAYS OF RUSSIA.

A French journal publishes from the Augsburg Gazette an interesting account of the progress which has been made within the last few years in the prosecution of railways in Russia.—From this article we gather the following facts: The first railway in Russia was that leading from St. Petersburgh to Tsarskozela and Paulowsk, two imperial residences, a distance of 17 miles. This road was opened in 1837, by a company consisting in part of British capitalists; and the shares, which cost from 40 to 50 dollars, are now worth 60 or 70. This was soon followed by the great enterprise undertaken by the Emperor, in which he took a deep interest, of a first class railway from St. Petersburgh to Moscow, 607 versts in length, or just about 400 English miles. In the prosecution of the work it is well known by the friends of the late Major Whistler, who was one of the efficient engineers of the Western Rail-road in Massachusetts, that he was invited thither through the agency of Mr. Bodisco, the Russian minister, and was employed in a very responsible situation in the conduct of the work until his death, which took place a short time before it was finished. Under the agency of Mr. Whistler, a large number of American mechanics were invited to Russia, and employed in the construction of locomotives and machinery.

This work was constructed under the direction of the Minister of Public Works, Count Kleir Michel, aided by Major Whistler, and was opened on the 1st of November, 1851. It is found to be of immense benefit to the commerce of the country, and the business upon it is daily increasing. The passage is made from the one capital to the other in 22 hours, which previously occupied four days in diligent travelling day and night.

The Augsburg paper goes on to relate that this line had been hardly finished, when the Emperor ordered the construction of another gigantic road between St. Petersburgh and Warsaw. The track has been laid out, and thousands of laborers are now engaged in grading it.

This road will be 1010 versts, or 668 miles long. It will pass by the cities of Louga, Pskoff, Dunabourg, Wilna, Grodno, Vileka, Duna, Viala, Niemen, and Narev. General Gertsfelt, of the Corps of Engineers, directs the works of this road.

While this great railway is in prosecution, a company has been formed at Riga for building a branch which is to unite the seaport with the city of Dunabourg, and thus connect Riga with the two capitals of Russia and Poland. This branch, the track of which was laid out by the engineer Gonzenback, will be about 138 miles in length. It will keep along the right bank of the Duna, and will pass near the cities of Johobstadt and Freidrichstadt. The capital is fixed at nine millions of rubles, and it is hoped that the government will grant a guarantee of interest of 4 per cent.

Another line, which is not yet begun, is to unite Dunabourg by Smolensk, with Moscow, and establish a direct communication between this ancient Russian capital and Warsaw by the route which was pursued by the advance and retreat of the French army in 1812.

In the south of the empire, the government is about, it is said, to authorize a company, by granting a guarantee of 4 per cent.

to undertake the construction of a rail-road between Kharoff and Odessa. This road will cross the Dnieper at Kreineetchong, above the rapids, which obstructed the navigation of the river. This road will benefit the commerce in grain in the same manner as the line from Dunabourg to Riga is destined to help forward that of timber.

Finally, in the kingdom of Poland, where for some years the line from Warsaw to Mysolvitz, in Prussian Silesia, has been in full activity, two other lines are thought of—one from Warsaw to Bromberg, the other from the same capital to Posen; but the arrangements necessary to be made with the Prussian government for this purpose have not reached a satisfactory result. The line from Warsaw to Mysolvitz, a little more than 200 miles in length, puts the capital of Poland in communication by railway with Vienna and Berlin, and consequently with Paris. When the line which is to join Warsaw to St. Petersburgh is opened for travel, which it is expected to be in about three years, the immense distance which separates France and Russia may be travelled over in four or five days.

Art. IX.—THE STATE OF NEW-HAMPSHIRE.*

THE first Europeans who colonized within the bounds of this State were persons belonging to expeditions for fishing along the coast, and for trading in furs, and a considerable time necessarily elapsed after the discovery and partial colonization of the shores before a regular government could be formed. The first arrangements consisted more in the regulations of a mercantile company, than in a civil legislature, with its provisions for insuring a permanent administration of well-digested laws—the result of deliberate consideration. The actual settlement of the State took place in 1623. The settlers were, however, greatly troubled by the conflicting claims of patentees. These claims were originally derived from the Council of Plymouth, in the mother country. Chalmers, in his political annals, remarks, that during the fifteen years of the existence of that company, it adopted the policy of conferring on various men several interfering parcels of New-England, which has thrown the greatest obscurity over its earliest history, occasioned long and perplexing embarrassments to the different claimants, to the different colonies, and to England. These transactions have been placed in as clear a light as the subject admits, at a cost of much research, by Dr. Belknap, the accomplished historian of New-

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* In previous volumes, condensed also into Industrial Resources, the reader will find most of the other States of the Union.

Hampshire. From him we learn that Sir Ferdinand Gorges and Captain John Mason, as joint partners, obtaining a title to a territory they called Laconia, extending from Merrimac river to Sagadehock, (or the Kennebec,) and far inland; Mason having previously acquired the grant of another, reaching from the river Naumkeag to that of Piscataqua, and back to their sources, employed men to settle the country. Accordingly, successive establishments were made at Little Harbor and Dover, to which, from other causes, were added those of Exeter and Hampton, forming for themselves severally, in a few years, separate jurisdictions. These various governments were of short duration, and by the year 1642 they were all absorbed in the General Government of Massachusetts. This absorption was not, however, an arbitrary act on the part of that State, but was solicited by the settlements from the necessity of the case. Exposed as they were to the attacks of the savages of the wilderness, who, especially about the year 1637, meditated the destruction of all European settlers along the coast, they found the want of some superior authority to act as an umpire in the disputes and difficulties which arose among themselves—and, added to this, a desire to hold their lands, not as tenants, but in simple fee, were sufficient reasons for wishing to avail themselves of the natural authority, experience and prosperity of Massachusetts.

The three governments of Dover, Exeter, and Piscataqua, or Portsmouth, after struggling with difficulties of a civil and ecclesiastical nature, were united to the settlements in their vicinity to the South. The name New-Hampshire was assumed as early as 1629. After Gorges and Mason had been for several years united in a patent from the Plymouth Council, embracing all the lands between the Merrimac and Sagadehock, and extending back to the great lakes and river of Canada, and called *Laconia*, Mason obtained for himself a new patent. The extent is thus described: "From the middle of Piscataqua river, and up the same to the furthest head thereof, and from thence north-westward, until sixty miles from the mouth of the harbor were finished; also, through Merrimac river, to the furthest head thereof, and so forward up into the land westward, until sixty miles were finished; and from thence to cross overland to the end of the sixty miles accounted from Piscataqua river; together with all islands within five miles of the coast." The territory included within these limits received the name which the State at present bears.

It deserves mention here, that, although the inhabitants of Massachusetts had formed for themselves what may be termed a "Test Act," and admitted none to "the freedom of their company, and thus to the bearing of office among them, but such as had been received into some one of the churches; yet, on the admission of the New-Hampshire towns, no such order was extended to them, and they elected their officers without the restriction; and it was not until 1671 that a Congregational Church was gathered in Portsmouth, their capital, there having been previously only an Episcopal Church in the town, which was formed in 1638.

The way, however, had been gradually preparing for a change of government.

Complaints having been made by the heirs of Gorges and Mason, a commission was given by Charles II. to investigate the state of the colonies, particularly in reference to the grievances complained of, and apply all proper remedies in their power, and make report. This report, although it failed of effecting all that was intended against the government of Massachusetts, prepared the way for the mission of Randolph, which resulted in his advice to separate New-Hampshire from that government, and to erect it into a province by itself. This arrangement was effected in 1680, and John Cutt, Esq., an aged and worthy citizen of Portsmouth, was appointed, by royal authority, President. A council was assigned him, a portion of the members being specially named, with permission to fill up the prescribed number at their pleasure, to which was added a house of representatives to be chosen by the people. New-Hampshire was, however, again united with Massachusetts under the presidency of Joseph Dudley, in 1686. In 1692, however, the separate governments obtained again and continued for ten years. Dudley being once more appointed in 1702, the two governments were again united, and continued from 1702 to 1741.

In the last named year, Benning Wentworth, a graduate of Harvard College, was appointed governor, and was succeeded in that office by his nephew, John Wentworth, in 1767, whose term of service closed but with the revolution.

New-Hampshire sent delegates to the Congress of the Confederation in 1775; and the Declaration of Independence was signed in her behalf, July 4, 1776, by the following gentlemen: Josiah Bartlett, William Whipple, and Matthew Thornton. She formed a State constitution January 5th, 1776, which was altered in 1784, and further altered and amended on February 13th, 1792. The Constitution of the United States was ratified by her June 21, 1788.

In the revolutionary struggle, New-Hampshire did her duty manfully. A detachment of men from Keene, under the command of Colonel Isaac Wyman, an active and influential man, marched to the field, and were present at the battle of Breeds' Hill. A company of 70 men, under the command of Captain George Reid, marched from Londonderry, and were also present at the same battle. General Joseph Cilley, distinguished for his bravery and patriotism during the whole contest, entered the army of the Revolution at its commencement, and commanded the first New-Hampshire regiment. General John Stark, a native of this State, appointed colonel of one of the three regiments raised by New-Hampshire, was engaged on the heights of Charlestown, June 17, 1775; was at the battle of Trenton in 1776; captured Colonel Baum and 1,000 of the British at Bennington, August 16, 1777; which event, in the language of Mr. Jefferson, was "the first link in the chain of successes which eventuated in the surrender at Saratoga."

The celebrated French philosopher, Volney, who travelled in this country from 1795 to 1798, and who published a book entitled, "View of the Climate and Soil of the United States of America," &c., &c., thus speaks of the work of the celebrated historian of New-Hampshire:—

> "Mr. Belknap's history of New-Hampshire, which I have often quoted, consists of three volumes octavo, printed at Boston. The first and second are occupied with the history of that colony, from its first settlement; and the picture they exhibit of it is so much the more curious, because we find in it the origin of a number of customs, which, formerly established by coercive laws, very strictly executed, have grown into habits, and now compose many parts of the character of the Americans. We there see the intolerant spirit of the first settlers prescribe rigorous rules to be observed in the intercourse between persons of the same or of different sexes; the mode of courtship before marriage; the mien and looks to be worn at home and abroad; how to carry the head, the arms, the eyes, to speak, to walk, &c.: whence have arisen that ceremonious tone, that grave and silent air, and all that starched behaviour which still prevails among the females of the United States. Women were forbidden to expose their arms or necks; the sleeves were to be close down to the wrists, and the gown up to the chin. The men were to cut their hair short, that they might not resemble women; they were not to drink healths, as being an act of Pagan libation; and they must not even brew on a Saturday, for fear the liquor should work on the Sunday. Disobedience of any of these injunctions rendered the delinquent liable to have an information laid against him, and the consequence of an information was punishment. Thus a real terrorist inquisition prevailed, and men's minds could not but contract all the habits implanted by persecution—habits of silence, of reserve in discourse, of dissimulation, of combination of ideas and plans, of energy in willing, and of resistance when at length patience is exhausted. As a moral work, these two volumes are interesting to consult, from the care taken by the author to collect authenticated facts. The third volume is a methodical description of the climate, the soil, its natural and artificial productions, the navigation, trade, agriculture, and state of the country in every respect. This volume may be compared to that of Mr. Jefferson, on Virginia. Both are accurate as statistical accounts as the powers and means of a single individual are capable of producing. Mr. Jefferson, who published his work in 1782, has the merit of having surmounted the principal difficulties, by tracing the first plan of a performance at that time new. Mr. Belknap, by publishing his in 1792, after twenty-two years of observation, has that of having profited of the facts and method acquired by the progress of the science. His third volume, though the author pays in it a double tribute to his character

as an American and a minister of the gospel, by declaiming sometimes against philosophers and European travellers, is, notwithstanding, one of the most philosophically instructive with which the United States have enriched the English language."

A work recently published in London, pays the following handsome compliment to New-England, which we deem as not inappropriate to this part of our subject:—

"The programme of principle was formulated in savage solitudes, by the determined Puritan and chivalrous cavalier of England's civil wars. Each flying in turn, or both together—the tyrant of the hour! * * * There, in the howling wilderness of a yet unsubdued world, rife with every privation, suffering, and danger, did each found his more especial empire—the Puritan, north, the Cavalier, south; each, too, gathering recruits from all the more conscientious sects and parties of all the more advanced nations of Europe. And there—on thy savage shore, New-England—while the winter's storm raged furious o'er the solitude, and thoughts of the fierce beast and fiercer man awed, but shook not the stern resolve—there did the pilgrim sign his compact, renewed from that of Runnymede. Not clothed in steel—their steel was of the soul—yet iron men were they who met on Plymouth's rock, and pledged their faith, as though in presence of their God, to Justice.

"Ay! such and no other—in its only mode of lasting truth and life—is that which men call liberty. And for such New-England's pilgrim knew thee, liberty!—even for that principle sublime, which weighs with even-hand the rights, and claims, and interests of each; only security for those of all; the steady point between two dire extremes, from which to deviate, is ever to incline towards tyranny on the one part, or towards license on the other.

"The compact of Plymouth founded a body politic, by invoking and inaugurating the principle which was to rule its destinies. It laid the foundations of a new order of civilization, by cherishing the principles of a theory inverse to that so often challenged, but still unconquered, of the priest of Rome. It gave a voice to the thoughts and aspirations of England's and Europe's great epoch: Stifled, as that voice by turns had been, and was, in every land—in Italy, in Spain, in Holland, England, France. It opened a country of refuge to hunted humanity in her hour of need: the Dutch republican; the British patriot of every faith—religious and political; the English royalist and English regicide; the Irish rebel—if rebel he can be, who, true to country, spurns invading power; the Scotch schismatic, recusant alike of faith imposed by Popes, or kings, or synods chosen and sustained by governments' corrupting patronage or wealth's intrigue; the hardy mountaineer of Wales, still faithful to the thought of ancient days; the Gallic Huguenot; the protesting Swede; the peaceful Friend, of iron fortitude and gentle speech; the great, the good, the meek, the strong, the wise, of every faith and every tongue, sought the wide world, and dropped anchor on its shore. Behold the elements which were to wage the last great battle with the present as with the past; and to throw wide open those doors of the future, of which the prelates and barons of England had drawn the bolts, and all the martyrs and patriots of Europe, through successive generations, had shaken the hinges!"

EDUCATION.—Early attention was paid to education in this State; the first law for the establishment of town schools was passed in 1647, by the general court at Massachusetts. We give the preamble and law to show the great change that has taken place in our orthography since that period, as well as the illiberal spirit exhibited, caused by the unhallowed union of church and state.

"It being one chiefe project of that old deluder, Sathan, to keep men from the knowledge of Scriptures as in former times, keeping them in an unknowne tongue, so in these latter times, by persuading them from the use of tongues, so that at least, the true sence and meaning of the original might be clouded with false glosses, of saint-seeming deceivers; and that learning may not bee buried in the grave of our forefathers in church and commonwealth, the Lord assisting our endeavors: *It is therefore ordered by this Courte and authority thereof*, that every townshipp within this jurisdiction, after that the Lord hath increased them to the number of fifty hows-holders, shall then forthwith appoint one within theire towne to teach all such children as shall resorte to him, to write and read; whose wages shall be paid either by the parents or masters of such children, or by the inhabitants in generall, by way of supplye, as the major parte of those who order the prudentials of the towne shall appointe; provided that those who send theire children bee not oppressed by paying much more than they can have them taught for in other towns."

In 1693, New-Hampshire having been separated from Massachusetts, and become a province, the first law passed, amid the terrors and distresses of the sanguinary war with the French and the Indians, exhibited the high regard the people of that province had for education. The law runs thus:

"It is enacted and ordained, that for the building and repairing of meeting-houses, ministers'-houses, school-houses, and allowing a salary to a schoolmaster in each town within this province, the selectmen in the respective towns shall raise money by an equal rate and assessment upon the inhabitants; and every town within this province, Dover only excepted, during the war shall, from and after the publication hereof, provide a schoolmaster for the supply of the town, under a penalty of Ten pounds; and for neglect thereof, to be paid one-half to their Majesties, and the other half to the poor of the town."

In 1719, a law was passed ordering every town having fifty householders or upwards, to be constantly provided with a schoolmaster to teach children and youth to read and write.

The first constitution of the State as a sovereign member of the confederacy, exhibited the high estimate placed on education. It contained the following: "Knowledge and learning, generally diffused through a community, being essential to the preservation of a free government, and spreading the opportunities and advantages of education through the various parts of the country, being highly conducive to promote this end; it shall be the duty of the legislators and magistrates, in all future periods of this government, to cherish the interests of literature and the sciences, and all seminaries and public schools; to encourage private and public institutions, rewards and immunities, for the promotion of the sciences and natural history."

Since that period the acts of the legislature in favor of common schools have been very liberal. They are established throughout the State, and every child and youth may enjoy the benefits of education proffered by them.

The census returns of 1850, as far as published, give, as the number of public schools, 2,381; number of teachers, 3,013; number of pupils, 75,643, and the expense of the same, $166,944; of which $141,016 is raised by taxation; $14,990 from the public funds; $2,523 from endowments; and, $8,415 from other sources.

The number of academies and private schools, by the same return, was 107; number of teachers, 183; number of pupils, 5,321; annual income, $43,202.

The whole number attending school, as returned by families, was 88,221.

COLLEGES.—Dartmouth College, in this State, has 18 teachers, 273 pupils, and an annual income of $11,000, $4,000 of which arises from endowment.

The number of persons in the State who cannot read and write is 3,009, of which, 2,064 are foreign born.

From the annual report of the Commissioners of Common Schools to the Legislature, at the June session, 1852, we have the following

SCHOOL STATISTICS.—"Whole number of school districts reported, 2,284; number of scholars above four years of age attending school two weeks, 84,900; number of scholars in the winter schools, 71,232; average attendance in the winter schools, 55,770—number of scholars in the summer schools, 58,805; average attendance in the summer schools, 44,564; average length of the winter schools, in weeks, 9.11; average length of the summer schools, in weeks, 9.20; average monthly wages of male teachers, exclusive of board, $15 18; average monthly wages of female teachers, exclusive of board, $6 63; number of male teachers employed in the winter schools, 1,205; number of female teachers employed in the winter schools, 1,080; amount of money raised by taxes for the schools, $150,527 86; amount contributed in board and fuel, $14,233 36; income of local funds, $8,559 67; amount of literary fund, $13,005; whole amount raised for the district schools during the year, $189,925 79.

POPULATION.—The aggregate population of New-Hampshire, by the census of 1850, was 317,976, of which there was born in the State, whites, males, 127,150; females, 130,982; free colored males, 165; females, 174. Born out of the State but in the United States—whites, males, 20,510; females, 24,415; free colored, males, 84; females, 83; born in foreign countries—whites, males, 8,211; females, 6,046; free colored, males, 8; females, 0; aggregate of places of birth unknown, 148.

The number of dwellings in the State, 57,339, and the number of families, 62,287.

The population increased from 1840 to 1850, 11.73 per cent. The number of deaf and dumb, blind, insane and idiotic, were 1,025, of which 898 were born in the State; 105 born out of the State, but in the United States, and 22 in foreign countries.

Under the head of professions, occupations and trades, of the male population, we find the number of males engaged in industrial pursuits to be 94,564.

The returns, as given by proprietors of establishments producing over $500 per annum, show the number of males employed for some of the leading interests:—Cotton factories, 2,915; woollen factories, 873; iron forges, foundries, rolling-mills, furnaces, &c., 272; glass factories, 137; paper mills, 97; ship-building, 349; saw and planing mills, 969; tanning and currying, 564; wooden ware factories, 394; fishing, 300.

By the same census, the number of industrial establishments in this State is 3,211; the capital invested in the same, of real and personal estate, $18,242,114; the value of the raw material employed, including fuel, $12,745,466; average monthly wages of male hands employed in them, $24 75; the average wages of female hands, $12 41; the average number of male hands, 14,903; average number of female hands, 12,989; producing, annually, to the value of $23,164,503.

AGRICULTURAL STATISTICS.—The number of acres of improved land is 2,251,488; and of unimproved, in farms, 1,140,926—valued at $55,245,997; value of farming implements and machinery, $2,314,125; number of horses, 34,233; asses and mules, 19; milch cows, 94,277; working oxen, 59,027; other cattle, 114,606; sheep, 384,756; swine, 63,487; total value of live stock, $8,871,901; value of animals slaughtered, $1,522,873; number of bushels of wheat, 185,658; rye, bushels, 183,117;

Indian corn, bushels, 1,573,670; oats, bushels, 973,381; wool, lbs. of, 1,108,476; peas and beans, bushels of, 70,856; Irish potatoes, bushels of, 4,304,919; barley, bushels of, 70,256; buckwheat, bushels of, 65,265; value of orchard products, $248,563; wine, gallons of, 344; value of produce of market gardens, $56,810; butter, lbs., 6,977,056; cheese, lbs., 3,196,563; hay, tons of, 598,854; cloverseed, bushels of, 829; other grass-seeds, bushels of, 8,071; flax, lbs. of, 7,652; flaxseed, bushels of, 189; silk cocoons, lbs. of, 191; maple sugar, lbs. of, 1,298,863; molasses, gallons of, 9,811, beeswax and honey, lbs. of, 117,140; value of home-made manufactures, $393,455.

FOREIGN COMMERCE.—The value of exports from this State of domestic produce in American vessels, for the year ending June 30th, 1852, was $65,233; in foreign vessels, $1,971, and foreign produce in foreign vessels, $2,254. The value of imports in American vessels was $68,661; and in foreign vessels, $14,658—total, $83,319.

TONNAGE.—The total number of vessels entering the ports of this State, during the same period, of American and foreign, was 78, with an aggregate tonnage of 8,493, having crews of 437 men and 52 boys.

The aggregate tonnage of Portsmouth is $24,891\frac{27}{95}$, of which 5,723 tons was in the coasting trade, 1,428 tons in the cod-fishery, and 855 tons in the mackerel fishery.

The number of vessels built was 14: viz., 10 ships, 4 schooners, of a total tonnage of 9,515.

NEWSPAPERS.—There are 38 newspapers and periodicals published in this State, issuing 3,067,552 printed copies annually.

LIBRARIES.—There are 47 public libraries in the State, having 42,017 volumes: and of school, Sunday-school, college and church libraries, 82, having 43,742 volumes; making a total of 129 libraries, with 85,759 volumes.

CHURCHES, &C.—The total number of churches in the State is 626, having accommodations for 237,417 persons, and the value of the church property is $1,405,786.

The churches are divided amongst the various denominations as follows: Baptists, 193; Congregationalists, 176; Methodists, 103; Universalists, 38; Union, 32; Christian, 24; Presbyterian, 13; Friends, 15; Unitarians, 13; Episcopalians, 11; Roman Catholic, 2; and minor sects 6.

CANALS.—The Middlesex canal commences at Boston harbor, and passes in a northwesterly direction through Charlestown, Medford, Woburn, Wilmington, to Lowell, 27 miles on the Merrimac river. It was incorporated in 1789, and completed in 1808, and cost $528,000. Summit level 104 feet above tide water, and 32 above the Merrimac, at Lowell. Breadth at the surface, thirty feet: at bottom, twenty; depth of water, three feet. Lockage, 136 feet; twenty locks. This and other short canals on the Merrimac, open a navigable communication between Boston and Concord. Bellows' Falls, of about 8,807 yards in length, with nine locks, in Rockingham, Vermont, overcomes a fall in the Connecticut river of 42 feet. This, with White river and Waterquechy canals, renders the Connecticut navigable for about 120 miles above Walpole.

RAIL-ROADS AND BANKS.—The message of Governor Martin to the legislature of New-Hampshire, at its June session, 1853, states, that there are 624¾ miles of rail-road in the State in running order, which cost $18,346,086 64. The last annual receipts were $1,768,455 98, and the expenses $949,567 54, giving a nett income of $818,888 44, and averaging nearly 4½ per cent. on the whole investment: that the banking capital of the State is $3,266,000, in addition to that of the savings banks, which is $2,132,218; and that the whole debt of the State was nearly $74,000.

PUBLIC INSTITUTIONS—STATE PRISON.—From the report of the Warden of the State prison at Concord to the legislature at the June session, 1852, it appears that the whole number of convicts in prison at that period was 111. Of these, 74 were committed for offences against property; 2 for arson; 6 for rape or attempt to commit rape; 2 for manslaughter; 5 for murder. There are 10 sentenced for life; 3 for 20 years; 2 for 15 years; 1 for 14 years; 1 for 12 years; 7 for 10 years; 23 for 5 years; 9 for 4 years; 22 for 3 years; 10 for 2 years. Of the whole number, 19 are foreigners; 34 natives of other New-England States; 8 natives of New-York; and 46 natives of New-Hampshire; 32 convicts are employed in the cabinet shop; 40 in the shoe shop; 19 in the smith shop; and three females are employed in sewing. The expenditures for the year were $7,434 11 cents; the receipts and earnings were $8,918 62; excess of income over expenses, $1,484 51. The prison library consists of about 600 volumes.

NEW-HAMPSHIRE ASYLUM FOR THE INSANE—CONCORD.—Since the opening of the asylum to June 1st, 1852, nearly ten years, there have been admitted 923 patients, 118 of which now remain in the institution. Of these, 63 are males, and 55 females. The number of patients admitted during the past year was 107—53 males and 54 females. 106 were discharged during the year. Of these, 66 had recovered (30 males, and 36 females). 13 had partially recovered; 16 were not relieved, and 11 died.

STATE REFORM SCHOOL—CONCORD.—At the session of the legislature in 1851, an act was passed, authorizing the governor to appoint a board of commissioners to select and obtain a lot of land of not less than fifty acres, for an eligible site for a manual labor school. A site has been selected in Concord, upon the shores of Long Pond, and plans, &c., prepared for a building, which will accommodate 300 boys and the officers of the institution, &c., and workmen are now engaged thereon.

DISTINGUISHED INDIVIDUALS.—Franklin Pierce, now President of the United States, is a native of this State. He is the third citizen of New-England who has been placed in that distinguished position, and the first that New Hampshire has ever furnished. He was called to this exalted station by almost the unanimous votes of the States, 27 out of 31 voting in his favor. This is a high compliment to his sterling worth. A distinguished officer, General WINFIELD SCOTT, whose valor and patriotism associated his name with many of the battles which have added glory to the American arms, was his opponent. In connection with this subject, we may mention that, in the Convention that nominated Franklin Pierce for the Presidency, though several distinguished civilians, amongst whom we name Lewis Cass, William L. Marcy, and James Buchanan (having each, in the estimation of their friends, the highest claims to that distinguished post,) were competitors, yet, when the decision was made, they, with that patriotism which characterized the revolutionary era, and which gives to us an earnest that *that* spirit still lives, came forward with one accord, and bore their testimony to the virtues, worth, and sterling patriotism of the nominee. Under the peculiar circumstances of the case, it must be considered the highest tribute ever paid to any one in the annals of history.

Amongst the distinguished individuals who have been called to the civil service of the country as advisers of the President, natives of this State, Daniel Webster (though hailing from Massachusetts) stands, as regards intellectual endowment, in the front rank, not only in this State but in the Union. He was twice Secretary of State, once under the administration of William Henry Harrison, and once under that of Millard Filmore.

Levi Woodbury, a native of this State, another intellectual giant, was first appointed Secretary of the Navy, under the administration of Andrew Jackson, and was transferred under the same administration to the State Department.

Art. X.—SIDNEY AND HIS COMPATRIOTS.*

CHATEAUBRIAND remarks, that the reverence we pay to genius is but the worship of ourselves placed upon a pedestal. We deduce from this a beautiful, and, at the same time, a sound philosophy. It teaches that noble examples, grafted upon the appreciative mind, will produce equal results: nay, more than equal. The germ may take root, grow, and expand into the more overshadowing tree, which may be for the healing of the nations; as the seed planted by SIDNEY, HAMPDEN, VANE, and their glorious associates, has ripened into the bright, consummate flower of our own Republic. Doubtless, we owe the liberties of this country, in some measure, to the bread *they* cast upon the waters. Their doctrines were, substantially, the same as laid down in the Declaration of Independence. VANE may be said, while he governed the Massachusetts colony for a short time, to have borrowed inspiration from the sublime works of Nature, on this continent, and rushed back to England, resolved that kingcraft should not mar so perfect a creation of God. The blood of HARRY VANE and his compeers was sown like dragon's teeth, at the foot of the throne.

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* Life of Algernon Sidney, with Sketches of some of his Contemporaries, and Extracts from his Correspondence and Political Writings. By G. Van Santvoord. New-York: C. Scribner. 1851.

To enter into the life and character of ALGERNON SIDNEY is to penetrate the inner temple, the very *adyta* of literature. Whether we view him as the ardent Puritan, fighting beside CROMWELL, his banner inscribed *Sanctus amor patriæ dat animum;* as the unflinching statesman, alike unbending to the usurper as he was to the tyrant, CHARLES; as the wanderer abroad, philosophizing amid privations such as would have sunk ordinary men, but finding, like his prototype of Rome, that—

"Far more true joy MARCELLUS, exiled, feels,
Than CÆSAR, with a Senate at his heels;"

or, in the mournful drama of his trial, forsaken by his friends, who dreaded the frown of the Court, he stood alone, but undaunted, before the ruthless Jeffreys, appointed a month before to condemn him—we behold him a moral hero, of which England was not worthy, but of whom human nature is proud.

The *jus divinum* theory of JAMES THE FIRST, derived from Tilmer, was a poor legacy to transmit to CHARLES along with the crown. Tyranny thrives upon submission:

——————— "Bended knees
Feed pride, and are the proud man's fees."

The divine right, added to the absurd and impious apothegm of JAMES growing out of it, that to contest the power of kings was to dispute the power of God, became suicidal in the hands of his son. In vain STRAFFORD essayed to stem the torrent, by boldness and skill unsurpassed in his day; his head fell beneath the axe. LAUD, Archbishop of Canterbury, let slip his bloodhounds upon the Dissenters, and they were hunted down like timid hares. Freedom to worship God was denied, and High-Church intolerance was worse than Popish bulls. The Star-chamber machinery aided the Inquisition of the High Commission, and no whisper of complaint, no gesture of opposition, but was heard in the conclave. Arraignment and condemnation followed in secret. The *Great Charter* was practically ignored. Like the Council of Ten of Venice, every man was presumed guilty until he was proven innocent—when proof was admitted. The people were outraged. Parliament refused subsidies to the king. He then capped the climax of his folly—he dissolved it, and levied taxes on his own authority. Among kingly prerogatives, great as they were, this was most especially excepted. And mark the similarity between this cause of the Revolution of 1642 and our own—taxation without representation! The kingdom (since 1603, comprised of Scotland and Ireland) rose as one man. The Petition of Right was demanded, granted, and—violated. We all know the sequel. Marston Moor decided the fate of the king, and he was tried and condemned. The Presbyterians, as a body in parliament, were desirous merely for deposing him and saving his life. The gospel taught them mercy; but CROMWELL had, even then, his own ambitious designs, and sent Pride's troop to "purge" the house of this excess of the milk of human kindness; which he did: and the future Dictator found a wholesome majority for decapitation. SIDNEY and VANE retired in disgust from such an associate. Oppugnancy was as strong between them as it is between light and darkness—guilt and innocence. SIDNEY did not sit upon the trial of CHARLES, therefore was not a "regicide." But the CAUSE was his. From his youth, he says, he "endeavored to uphold the common rights of mankind, the laws of the land, and the true Protestant religion, against corrupt principles, *arbitrary power*, and Popery." These he consistently acted out, and penned them in his "Apology in the day of his Death," more than two score years after the Revolution. Like VANE, HAMPDEN and MARTEN, he was of cavalier blood; but he volunteered in the ranks of their enemies, and fought under the blue banner of the Covenanters. He was the friend of MILTON, WILLIAM PENN, DE WITT, Sir WILLIAM JONES, and others, whose lives have been as brilliant and as spotless. That hatred pursued him at home and abroad, on the Restoration, was naturally attributed to his incorruptibility. The "Merry Monarch" himself would have spared his life, for the careless king was good-natured; but his brother JAMES forestalled him. So true it is, that bigotry and cruelty hunt in couples. Judicial murder was done on SIDNEY, to the eternal infamy of the reign.

We have sketched a trite story, but such histories cannot too often be recounted. Who knows but that it may happen to arouse a latent fire in

> "Some Cromwell—guiltless of his country's blood!"

There is an ample field in the troubled world still for patriotism such as ALGERNON SIDNEY'S, and the clouds are portentous—big with the fate of empires. It does not pale the laurels of our forefathers, that they gathered wisdom from their ancestors. It makes them more abundant that they looked to such a source for examples which they so gallantly followed.

That the masses of Europe (and uneducated, unchristian men are only masses) are but illy prepared for self-government, is painfully evident. If not, why a Napoleon, or the princes and potentates that are as imbecile in mind as absolute in conduct! Pythia still sits upon the tripod at Delphi, and her oracles are yet interpreted by the cunning priests. Let the light of Christianity be diffused, and thrones will topple down like icicles beneath the sun. Our fathers drank in republicanism with every chapter of the Bible. It breathes democracy on every page. It is a proscribed work in Italy, but it was the manual of the Puritan Parliament, and the guide which led their sons of Seventy-six to freedom! Shut that Book and you blindfold liberty! It is the *Sechina* of the Hebrews, burning forever brightly between the cherubim on the Mercy Seat, and its light is from Heaven! Vain, then, the efforts to extinguish it. It must enlighten the world. The decree has gone forth—*the truth shall make you free!*

The abstract principle which governed SIDNEY and his compatriots we have already given in his own words. Their doctrines, which Vane reported in Parliament, are singularly coincident with those in the Constitution of the United States. They were: *First*, That a fundamental constitution, limiting the powers of government, ought first to be established. (This has yet to be done; England has no written Constitution as a whole.) *Second*, That by this Constitution monarchy should be declared destructive to the people's liberties. *Third*, That magistrates should have no power to exercise compulsion in matters of faith and worship.

Such were the principles of HARRY VANE, "the noblest Roman of them all." To avow them in that age and under the haughty Stuarts, showed an intrepidity almost superhuman. Yet they were entirely consistent with the character of that noble gentleman and polished scholar. Patriotism was inherent in his nature. He despised the Protector as much as he loathed the measures of CHARLES. There was no more possibility of temporizing with such a man, than, a century after, there would have been with HANCOCK or RUTLEDGE. If such language was treason, like PATRICK HENRY, he exclaimed, make the most of it! And they did; they sentenced him to death. But principles are immortal, and so are those who adopt and promulgate them. Those of Vane furnished a text for the "rebels" of 1776; and JEFFERSON'S eloquent thesis thereon made millions of converts. The stone he cast in the water has made a circle as wide as the earth. Even now its ripple is heard upon the shores of China. Well might the usurper exclaim, when, on driving out the members of the Long Parliament, VANE protested that it was not "honest,"—"Sir Harry Vane! Sir Harry Vane! The Lord deliver me from Sir Harry Vane!!"

The letters and discourses of SIDNEY, collated in this well-written and impartial life of the patriot, reiterate and elaborate those of his magnanimous contemporary.

Rather than admit, servilely, that his former conduct was wrong, and thus avail himself of the benefit of a lying "amnesty," he wandered "as a vagabond through the world, forsaken of my friends, poor, and known only as a broken limb of a shipwrecked faction." But his sturdy independence was still such, that when in France, Louis XIV. demanded to purchase the horse he rode, he drew a pistol and shot it, saying that his horse was born a free creature, had served a free man, and should not be mastered by a king of slaves." We can well imagine such democratic sentiments as the following to emanate from such a man: "God having given to all men, in some degree, a capacity of judging what is good for themselves, he hath granted to all likewise a liberty of inventing such forms as please them best, without favoring one more than another. * * * While men are all equal, none will yield to any otherwise than by general consent. This is the ground of all just governments. * * * If men are naturally free, such as have wisdom and understanding will always frame good governments. * * * All magistrates are equally the ministers of God, who perform the work for which they were instituted; and the people which institutes them may proportion, regulate, and terminate their power as to time, measure, and number of persons, as seems most convenient to themselves, which can be no other than their own good." And here, too, we have an answer to the abolitionists (who may be placed in the same category with the Fifth Monarchy Men of the Commonwealth) in a favorite quibble of theirs. He says: That equality which is just among equals, is just *only* among equals. But such as are base, ignorant, vicious, slothful, or cowardly, are not equal in natural or acquired virtues to the generous, wise, valiant, and industrious, nor equally useful to the societies in which they live. *They cannot, therefore, have an equal part in the government of them;* they cannot equally provide for the common good; and it is not a personal but a public benefit that is sought in their constitution and continuance. One more extract from the "*Discourses on Government*," and we have done. "If the laws of God and man are therefore of no effect when the magistracy is left at liberty to break them; and if the lusts of those who are too strong for the tribunals of justice cannot be otherwise restrained than by sedition, tumults, and wars, *these seditions, tumults and wars, are justified by the laws of God and man.*"

Bold language this to use in the time of the Stuarts, and strikingly like that of the little Congress who met in Independence Hall in '76! They are golden sentiments; the very stamina of freedom. Let them be disseminated! The time is propitious. As Everett, on the 4th of July, said: "The spirit of the age has gone forth to hold his great review, and the kings of the earth are moved to meet him at his coming."

Art. XI.—COMMERCIAL AND FINANCIAL.

IMPORTS AND EXPORTS FOR THE LAST FISCAL YEAR.—TRADE OF NEW-ORLEANS.—IMPORTS AND EXPORTS FROM ALL THE STATES.—TRADE OF CALIFORNIA.—FINANCES OF NEW-ORLEANS, ETC.

THE fiscal year being just closed, it is a favorable time to consider the progress of the commerce of the United States during the past year. The results arrived at will be, of course, only approximating, since there are as yet only semi-official returns, and these only for a few of the most important ports. It is estimated that the imports at the port of New-York, during the last fiscal year, have increased 37½ per cent., and that at the others the average increase has been at least 10 per cent.; making the comparison of the two last years stand thus:—

	1853.	1852.
Imports into the U. S., for the year ending June 30,	$260,641,000..	$207,224.000
Increase of the past year		$53,401,000

In some places, as at New-Orleans, there has been but little if any increase of imports.* At Philadelphia, the increase has been from 15 to 20 per cent. since January last; and in California fully 37½ per cent. is the rate of increase. The direct import-

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* Speaking of the exports and imports of New-Orleans, for the past year, the N. O. Commercial Bulletin thus remarks:

"While the exports have thus increased at the rate of 41 per cent., the imports at that port have declined during the same period, as will appear by the following comparison :—

IMPORTS OF FOREIGN GOODS AT NEW-ORLEANS.

	1851-2.	1852-3.
Quarter ending Sept. 30	—	$1,950,684
Do. Dec. 31	—	3,270.976
Do. Mar. 31	—	4,338,339
Three quarters,	$9,822,605	$9,559,999
Quarter ending June 30	2,235,119	2,235,119
Fiscal year	$12,057,724	$11,795,118

Thus, if the imports for the last quarter of the current fiscal year should be the same as for the corresponding quarter of last year, there will be a falling off at that port of $262,606.

trade of New-Orleans, says a northern contemporary, has not advanced, because of the increased steam facilities of transferring foreign goods entered at New-York, many of which are received there, by European steamers, from four to six weeks earlier than a sailing vessel usually makes the voyage from Liverpool or Havre to New-Orleans.

The imports at the port of New-York, up to June 30, exclusive of specie, are stated to be $164,050,000, against $119,434,000 for the last year. The imports at all other ports are estimated at $96,591,000; making the grand total of imports of foreign merchandise, exclusive of specie, for fiscal year just closed, $260,641,000.*

It is asked, what is the prospect of our paying for this heavy increase of importation, amounting to $53,401,000? Has there been a corresponding increase in the exports of the country? Let us see.

DOMESTIC PRODUCE EXPORTED.

New-York,	1851–2,	$38,853,000	1852–3,	$43,013,000
New-Orleans,†	do.	48,808,000	do.	65,000,000
Other ports,	do.	62,103,000	do.	76,542,000
Total domestic produce,	do.	$149,764,000	do.	$184,555,000
Foreign goods re-exported,	do.	17,204,000	do.	18,500,000
		$166,968,000		$203,055,000
Increase of exports during the past year,				37,078,000
To which add the specie exported, (for New-York alone,)				21,125,000
We have for total exports				$58,203,000

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* The following shows the imports of foreign goods, and the total exports of foreign and domestic produce, from each State, compiled from official returns :—

IMPORTS AND EXPORTS FROM UNITED STATES FOR FISCAL YEAR ENDING JUNE 30, 1853.

	Imports.	Exports.
New-York	$132,329,306	$87,484,456
Louisiana	12,057,724	49,058,885
Alabama	588,382	17,385,704
Massachusetts	33,504,789	16,546,499
South Carolina	2,175,614	11,676,021
Maryland	6,719,986	6,667,861
Pennsylvania	14,785,917	5,828,571
Georgia	474,925	4,999,090
Virginia	735,858	2,724,657
Florida	30,713	2,511,976
Maine	1,094,977	1,717,818
Texas	77,892	713,075
North Carolina	300,488	576,399
Connecticut	394,675	506,174
Vermont	192,593	388,113
Ohio	932,216	353,514
Rhode Island	201,680	179,175
Michigan	196,240	145,152
District of Columbia	54,142	79,005
New-Hampshire	83,319	69,458
Illinois	4,832	51,325
New-Jersey	2,491	1,438
California	4,648,587	———
Missouri	914,826	———
Tennessee	256,504	———
Kentucky	185,559	———
Minnesota	1,207	———
Total	$212,945,442	$209,658,366

The totals for New-York, as given above, are for the State, and not for the port alone. The States are arranged according to the value of their exports to foreign countries; and in both the imports and exports the specie is included. We have already shown a probable increase of $5,000,000 in the exports of domestic produce at this port; and $17,000,000 at New-Orleans. Extend this throughout the cotton exporting districts, and it will be seen that there is little to fear from the "balance of trade." The exports of specie will, undoubtedly, show a large decrease, the falling off at this port being over $15,000,000.

† The more exact statement of the exports from New-Orleans is as follows: [*See continuation of note next page.*]

Which exceeds our exports by $4,802,000. This certainly ought to quiet the ridiculous fears of those who make so much of what they have been taught to call "an alarming balance of trade."

The exportation of domestic produce from New-York, for 1851–2, was $38,853,000; and for 1852–3, ending June 30, it had increased to $43,013,000.

It is estimated, as is seen above, that the exports from New-Orleans, this year, will exceed those of last year by at least $15,000,000. The immense and increasing imports are regarded by many as unfavorable, and as indicating excessive speculation and reckless overtrading; but we really do not see, as yet, any certain evidence of this. If the greatly increased exportation proves anything, it shows, that the increased imports are only the result of a positive prosperity—of a prosperity arising from the healthy operation of the natural laws of trade, untrammeled as they are by the present common sense system. The present unparalleled prosperity of our commerce is highly comfirmatory to the correctness of those principles of trade now adopted, partially by England and this country. A system of trade reforms has been going on ever since 1833, when our trade was thrown open to the British North American colonies; since that time too, our country has been covered with a net-work of railroads, connecting all the rich regions of the West with the seacoast; and to this we must add, that magnificent result of the Mexican war—the opening of the inexhaustible gold mines of California. These three courses have brought about our present unparalleled prosperity.

The secondary and more immediate causes of the present growing importations and exportations are, first, the immense demand of California for goods, in return for the $50,000,000 or $60,000,000 which she has been sending to us annually, saying nothing

EXPORTS OF DOMESTIC PRODUCE FROM NEW-ORLEANS.

	1851-2.	1852-3.
Quarter ending Sept. 30	—	$5,517,633
Do. — Dec. 31	—	20,129,289
Do. — March 31	—	19,514,707
Three quarters,	$32,019,534	$45,161,629
Quarter ending June 30	16,788,635	20,400,900
Fiscal year	$48,808,169	$65,561,629

In the above we have estimated the exports for the last quarter at the same rates of increase as are shown for the previous three quarters. Thus we find an actual increase in exports of domestic produce, at that single port, of $13,142,095 for the first three quarters, making at the same rate, an excess for the whole fiscal year of $16,753,460. The difference will probably be even greater than is thus exhibited, as we have given, for the first year named, the exports for the whole State of Louisiana, while for the last year, the total covers only the clearances from New-Orleans; (there is another collection district, Teche ;) and it is also likely that for the quarter ending June 30th, 1853, the increase will show a greater comparative ratio. Neither of the totals above given includes the exports of foreign goods, but from that district this item is comparatively unimportant—the amount for the last year *being only* $250,716 for the whole state.

of the untold amounts brought by private individuals from that country, which are not included; second, the immense influx of emigrants from Europe, from 400,000 to half a million annually, creating an immense increase in the demand for foreign products; third, the effect of the abundance of gold in Europe upon the prices of our products, thus stimulating increased exportations hence, and consequently increased importations; fourth, and lastly, the effect of modified duties abroad is now beginning to manifest itself, under the natural and certain operation of the laws of trade, in these immensely increased importations. Those who regard these immense importations as indicative of a fall, must consider well the basis upon which these imports rest. Let us be more specific. During the last three years California has poured in upon us more than $150,000,000, counting only what has been received at the United States mint. During the same time more than 1,100,000 emigrants have arrived, bringing, on an average, $100 each, which would be, $100,000,000; and to this we must add, that the increase in the value of our cotton and other products has been, during the same period of three years, at least $200,000,000, making our additional means for importing amount to $450,000,000. It is then not at all a fearful sign, that our imports for the last fiscal year have exceeded those of the previous year by $53,401,000.

The receipts of gold at Philadelphia, for the last fiscal year, were $55,580,000; and the exports from New-York alone have been $21,125,000; showing that there must now be retained in the United States, notwithstanding the increased imports, $34,455,000. This does not include the receipts of gold at the branch mints, nor the foreign coin imported, nor the vast amounts brought in by private individuals. Nor is there any allowance made for the gold exported from other ports than New-York, as it is quite certain that most of the gold exported goes from New-York.

On the 1st of July last, the United States Treasury had, in its various depositories, the sum of $21,141,248—a larger balance than it has before exhibited since the distribution of the surplus revenue to the States in 1836. The deposits were as follows:

Sub-Treasury. New-York..	$8,304,083	At San Francisco..........	$1.568.390
Mint at Philadelphia......	6,812,354	At Boston................	2,392,555
At New-Orleans..........	2,913,980	Miscellaneous............	2,149,986
Total......................			$24,141,248

A contemporary of the New-York Times thus exhibits the Dr. and Cr. of the United States, for the year ending July 1, 1853:—"According to the tables published above, taken in connection with our previous estimate of the increase of American indebtedness abroad for the past fiscal year, the amount for the year would seem, by Custom-House measurement of import values, to stand as follows:

Dr.		Cr.	
Total Imports	$260,641,000	Exports	$203,055,000
Interest on debt	18,000,000	Specie	26,125,000*
		R. R. Bonds	51,000,000
Total	$278,641,000		
		Total	$280,180,000

This would seem to leave the balance in a very favorable condition for the future."

Should a war break out in Europe, the exports from this country would be immensely increased, for there is no evidence at present of a large, or even an average crop in Europe. The English crop, it is thought, will be short; and in France, the small supplies on hand, and the unfavorable aspect of the crops, has already created a rise in prices. Grain has also risen at Odessa, the great grain market of the Black Sea, owing to the large purchases made for the Russian army. War or no war, there is likely to be an increased demand for our agricultural products.†

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*Adding five millions for other ports than New-York.

† The London correspondent of the National Intelligencer, under date of July 1, 1853, writes as follows:—"The price of wheat is rising in Mark Lane. On Monday it rose from 1s. to 2s. per quarter. At the same time France, which has sent England large supplies of wheat and flour during the last three years, has become a purchaser of cargoes intended for our market. The autumn here was a very unfavorable seed time; the winter and spring were long and dreary; the summer appears to be setting in wet, and the prospects are such as make people look at the stocks on hand, and the probable sources of future supply. And, in the first place, there has been for some time past a drain of corn from the neighboring continent, and much cannot be expected thence. The stocks are short, the prospects from the Vistula to the Garonne are unpromising, and the consumption is every where extraordinarily large. Trade is flourishing throughout France and the greater part of Germany, and the demand for food is great. Flour has risen considerably in Paris, and the stock is rapidly diminishing. Flour is now dearer in Paris than in London. The supply which we have lately annually derived from France of wheat and flour, has averaged from 1,500,000 to 2,000,000 quarters. That source of supply is for the present exhausted. The consumption in England is very great. More wheat was imported into England last month, viz., 525,236 quarters, than has ever been imported during a month, except upon two occasions, since the repeal of the corn laws; and, in addition to this large quantity of wheat, 341,964 cwt. of flour were imported. The rising prices show that this large quantity was not too much. From the north of Europe very little may be expected, and the political proceedings of Russia threaten the supplies from Odessa. The sale of wheat and beans from Egypt has been stopped by the government of that country. War may put a stop to the imports from the Levant. There is thus a prospect of both a deficient and late harvest at home, and very much diminished supplies from abroad. There is a promise, however, of a large quantity of wheat from Canada, and this has made, say the Liverpool papers, the wheat market dull at Liverpool. The people on the Corn Exchange are of opinion that not much more wheat of last harvest will come from the United States. They are, however, calculating upon your having an early and abundant harvest, and the means of furnishing England with a large future supply. People here are beginning to count upon the immense quantity of maize annually raised in the

The exportation of domestic produce from New-Orleans during the last fiscal year, is estimated at $65,000,000, against $48,808,000 for the previous year. Mr. Henry T. Lonsdale, of New-Orleans, has just furnished his annual statement of the coffee trade of that port, which shows a great advance in that important branch of commerce. The following is a condensed form of his circular:

	July 1, '50, to July 1, '51.	July 1, '51, to July 1, '52.	July 1, '52, to July 1, '53.
Imports direct from Rio, bags,	270,247	325,957	344,515
Imports coastwise of Rio,	32,545	34,821	26,370
Imports direct from Cuba, &c.,	10,630	12,562	10,628
	314,422	373,340	381,513

Sales of Rio coffee for the year ending July 1, 1851, for consumption,		345,781
Sales of Rio coffee for the year ending July 1, 1852, for consumption,		371,278
Sales of Rio coffee for the year ending July 1, 1853, for consumption,		322,146
Stock of Rio in importers' hands,	66,865	
Stock of Rio in second hands,	14,481	
Stock of other descriptions,	5,000	86,346
Same time last year,		26,979
Increase of stock this year,		59,367

SALES AND AVERAGE PRICES OF RIO COFFEE FOR THE PAST YEAR :—

1852	July	6,976	8 74-100
..	August	9.532	8 52
..	September	15,899	8 45
..	October	21,719	8 45
..	November	39.232	8 80
..	December	63,426	9 09
1853	January	69,703	9 00
..	February	39.383	9 33
..	March	61,275	9 12
..	April	17.609	9 00
..	May	24,105	8 91
..	June	22,695	8 72
		391,594	8 95

Average price of Rio coffee for 1851–2	8 60
Average price of Rio coffee for 1850-1	10 18

The above sales include the transactions from importers' and speculators' hands, and exceed the sales for consumption by

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United States, as furnishing a check upon any exorbitant rise in the price of wheat. A Mark Lane circular states your annual produce of Indian corn at no less than 592,326,612 bushels; and this, it is said, will enable you to dispense with a large proportion of your wheat. England now imports large quantities of maize; since last September no less than 1,479,964 bushels. Looking at the immense quantity of maize you annually produce, we do not anticipate any probable lack of food in Europe."

60,448 bags. They also include 8,246 bags of inferior coffee, sold in March at 7c.; 1,443 bags of same, sold in April at 7½c.; and 13,484 bags damaged and skimmings, sold throughout the year, which are not computed in making the general average.

The average price of coffee for the past year is 8 95-100 cents per pound.

The stock of Rio coffee at all the importing ports of the United States, is estimated at this day, 230,000; same period last year, 130,000. Increase of stock in the United States—bags, 100,000.

The sale for consumption in the United States for the past year is estimated at 966,000 bags, against 845,000 bags the same period last year, being an increase of 121,000 bags this year.

The total exports from Rio de Janeiro, from 1st May, 1852, to 1st May, 1853, have been 1,968,625 bags, against 1,825,779 bags previous year, being an increase of 142,846 bags this year.

The exports from Rio to all ports in the United States, from 1st May, 1852, to 1st May, 1853, have been 1,066,311 bags, against 907,424 bags same period previous year; being an increase of 158,887 bags this year.

New-Orleans is the greatest coffee market in the United States. The following is an estimate of the coffee produced in every part of the world at the present time:

Brazil	176.000.000 lbs.
Java	126,000,000
Cuba and Porto Rico	30,000,000
St. Domingo	35 000.000
Laguayra	35,000,000
Costa Rica	9,000.000
British West Indies	8,000,000
Ceylon	40,000,000
Malabar and Mysore	5,000,000
French and Dutch West Indies	2,000.000
The Philippines	3,000,000
Sumatra	5,000,000
Celebes	1,000,000
Arabia	3,000,000
Total	476,000,000

The cost of all this to the consumer is not less than one hundred millions of dollars per year. The yearly consumption of coffee in the United States is 5.57 pounds per head—five times more than in Great Britain. It is thought that the introduction of coffee and tobacco have conduced to the promotion of sobriety, and that the enormous sums expended in these commodities would without them be thrown away in buying intoxicating drinks.

We will close this branch of our subject with some statistics regarding the immense and growing trade of San Francisco. The following table is compiled from the custom-house records, and is, therefore, reliable. It will furnish a better idea of the extent and range of the trade of that port than any thing else that can be given. It shows the number of vessels entered and cleared at San Francisco, from January 1 to February 27, 1853:

	Entered From		Cleared For	
Ports.	No.	Tons.	No.	Tons.
Eastern domestic ports	61	41,809	6	4,855
Pacific domestic ports	15	12,318	92	16,819
Whaling voyage	1	150	—	—
Ports in Great Britain	22	10,486	—	—
Ports in France	8	2,774	—	—
Ports in Holland	2	1,273	—	—
Hanse Towns	3	907	—	—
Vancouver's Island	2	439	—	—
Russian Possessions—Sitka	1	500	—	—
Valparaiso	26	9,234	28	8,917
Other Chilian ports	4	960	1	154
Peruvian ports	5	919	30	16,805
Mexican ports—Mazatlan	3	335	8	1,637
Acapulco	2	378	—	—
St. Blas	3	460	4	754
Guaymas	—	—	3	320
La Paz	—	—	2	185
In general	—	—	1	131
Isla de Carmen	1	131	—	—
Sandwich Islands	8	1,218	11	3,848
Ladrone Islands	2	237	—	—
Society Islands	1	94	—	—
Other Pacific Islands	—	—	9	2,001
Panama, New Granada	10	9,743	6	8,986
Central America—San Juan	4	4,082	3	2,965
Realejo	1	94	—	—
Rio Janeiro	1	392	1	391
Chinese ports	15	5,177	17	7,359
Manilla	1	175	9	8,266
British Australia—Newcastle	1	399	—	—
Port Philip	—	—	4	1,450
Sydney	—	—	5	1,348
Melbourne	—	—	1	32
Ecuadorian ports	—	—	1	197
Singapore	—	—	2	646
Batavia	—	—	1	470
Calcutta	—	—	10	7,271
Alioth, Bay of Bengal	—	—	1	512
Akyab, Bay of Bengal	—	—	1	608
Pondicherri, French East Indies	—	—	1	281
Total from Jan. 1 to Feb. 27	*205	104,693	259	97,504

The financial condition of the country appears to be not less prosperous than its commercial. Indeed there can be no prosperity of the latter without a corresponding prosperity of the former.

The commissioners of the Consolidated Debt at New-Orleans

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* This total shows 6 vessels and 2,272 tons more than the actual arrivals, in consequence of one vessel from New-York having called at Rio Janeiro, and one each from New-York, France, England, the Hanse Towns and Holland, having called at Valparaiso and brought cargo thence. Consequently, these vessels enter from two ports each.

have recently made a report, from which it appears that the consolidation of the different municipalities, on the annexation of the city of Lafayette, has resulted most happily. The act of consolidation took effect on the 12th of April, 1852, at which time the entire debt of the city amounted to $7,702,329, of which $2,000,000 was past due. Since that time the commissioners, through the improved credit of the consolidated city,—the result above of the act of consolidation,—have extinguished $5,000,191 of the debts of the old isolated corporations, including Lafayette, and had in their hands, at the time of making the report, the sum of $437,320. The total debt of the old corporations still outstanding on the 1st of April, 1853, matured and payable variously from 1853 to 1877, inclusive, was $3,182,516 54 cents, as follows:

Old city	$2,011,000 00
Municipality No. 1	158,667 24
Municipality No. 2	861.108 24
Municipality No. 3	61,038 52
Lafayette	90,702 54
Total	$3,182,516 54

Of the above outstanding debt of the first municipality, $10,148 75 are small municipal notes; and that of the third municipality, $46,048 52 are similar notes. It is doubtful if the whole, or even the greater part of these two amounts, be ever presented for payment.

Assuming that no more bonds will be issued in exchange for any portion of the obligations of the old corporations maturing in 1853 and 1854, the commissioners make the following exhibit of the means in their hands, and the liabilities for those two years:

Total liabilities up to January 1, 1854, for obligations and interest maturing		$ 609,099 56
Cash on hand	$437,320 22	
Tax of 1853	650,000 00	
Total means for 1853		1,087,320 22
Balance in hands of commissioners, January 1, 1854		$478,220 66
Tax of 1854		650,000 00
Total means for 1854		$1,128,220 66
Liabilities for 1854		655,464 13
Balance in hands of commissioners, January 1, 1855		$472,756 53

It thus appears that ample provision has been made to meet the obligations of the city maturing for the next two years.

In conclusion, the commissioners make the following just reflections:

"Twelve months ago the act of consolidation went into operation, and the commissioners entered upon their duties. It found the city without credit, confusion in most of its branches of government, and the people disheartened. To-day its credit is above par, no just demand can be made upon its treasury that is not promptly liquidated, and its fair name is without a blot. The spirit of the people has been awakened, and their energies, their intelligence, and their wealth, are directed to the development of the natural advantages of our city, and a bright future is before us."

This is truly a most encouraging account of the great commercial emporium of the Southwest, and speaks well for the enterprise and financial tact of its citizens.

The following will show the condition of the banks of New-Orleans on the 25th day of June, 1853, agreeably to the official statement:

LIABILITIES.	
Circulation	$7,158,338 95
Deposits	10,132.172 37
Due to Banks	1,180,846 13
Other Cash Liabilities	519,385 30
Total Liabilities	$18,990,742 75
CASH ASSETS.	
Specie	$6,795,697 04
Loans on Deposits	10,691,623 90
Foreign and Domestic Exchange	3,906,965 01
Other Cash Assets	1,924,000 00
Total	$23,327,942 32

Besides this, the banks have real estate, $1,248,371 71; loans on stock, $5,942,800 76; loans on mortgages, $4,062,957 02, and other assets, making a total in movement and dead weight liabilities, exclusive of capital, $26,724,186 46, and assets, $40,989,377 55.

From this it will be seen that the paper currency of New-Orleans is perfectly safe. Indeed, there is no better bank paper in the Union than that of New-Orleans, if we exclude the offspring of the free-banking system, which has lately gone into effect there, and of which we can, as yet, form no opinion.

Art. XII.—AGRICULTURE.

FERTILITY OF THE SOIL OF CALIFORNIA—WHEAT CROP OF THE UNITED STATES —FOREIGN DEMANDS FOR WHEAT—EFFECTS OF A EUROPEAN WAR ON OUR EXPORTATIONS.

MOST of our accounts from California have thus far been almost exclusively confined to the astonishing mineral wealth of that distant region of our great Republic. It is nevertheless true, that its agricultural capabilities are very extraordinary, and perhaps will finally prove to be, to that new State, quite as important as its auriferous capabilities. This double character of the soil of California—that it yields, in vast abundance, both gold and agricultural products—renders that region doubly remarkable, since the two characters are seldom united. Regions remarkable for their mineral wealth are usually very barren of agricultural products.

Almost incredible are the accounts which come to us of the fertility of the soil of California; but the truth of these accounts is attested by such " a cloud of witnesses," that we are constrained irresistibly to give them some heed. This astonishing fruitfulness is thought to lie "in the salubrity and genial temperature, the rains and dews, and of a certain slight portion of sulphur in the soil, or sulphuric gas which permeates it." In all the highly favored districts, sulphuretted hydrogen abounds.

Some idea can be formed of the productive character of the soil of California, from the following account of the operations in 1852 of two California farmers, which they state are underestimated:

One of them had 560 acres of potatoes, which yielded, on an average, 250 bushels per acre—highest yield 400 bushels. The cargo price at San Francisco was $4 per bushel—making a total in dollars, of $560,000, or $1,000 per acre.

Of onions he had four acres in cultivation, yielding 40,000 pounds per acre. The average price per pound he puts down at five cents, although at the time of writing it was from 15 to 20 cents. At five cents the harvest would be worth $2,000 per acre.

His cabbages yielded 3,500 marketable heads per acre. Average price per head not less than twenty cents. Forty acres were cultivated.

He had three acres of pumpkins, yielding 40,000 pounds an acre. The average price from three to five cents a pound. Split the difference, and say four, and the yield per acre was $1,600.

Similar crops of wheat, tomatoes, beets, carrots, barley, oats, &c., are described.

The report of another farmer is given, (Mr. E. L. Beard.) He marketed 22,000 bushels of oats, the average production per acre being fifty-six bushels. Oats were rated at three cents a pound.

Of potatoes, the same farmer produced over 60,000 bushels. The ground of 160 acres yielded 330 bushels an acre. Of onions, on fourteen acres, he gathered 200,000 pounds. Of cabbages he marketed 80,000 heads, &c.

The writer says that these farmers will, the present year, double their crops of last year.

In relation to fruit, and the intentions of farmers, the writer gives the following account:

San Jose Mission.—Orchard and vineyard fifteen acres; 330 full grown pear trees. Yield from one tree, 1,100, another 1,500 lbs. The money value of the latter $400, for one year remember. Some fig, quince, apple, apricot, and olive trees. Gross receipts for 1851, $16,000.

The potatoes grown in San Jose Valley are of superior size and flavor. Those weighing three to five lbs. being as choice as smaller. As many as twelve persons have freely partaken as much as they desired from one potatoe.

In the valley of San Jose and Santa Clara, within the circumference of a few miles, not less than 15,000 acres will be planted in potatoes, which, at a low estimate of six tons per acre, will give 90,000 tons, or nearly two pounds per diem for 300,000 persons during one year.

Grapes.—From San Diego, Los Angelos, and other localities in the southern portion of the State, we receive grapes almost by the cargo—luscious, delicious, such as you must partake of in California to properly estimate. They pay the producers say eight to ten cents per pound; are retailed here right and left at fifty cents per pound, and the amount daily devoured at that price during the season is truly astonishing.

Peaches, apples, pears, the latter exquisitely flavored, retail at 25 to 50 cents, and very few spoil at that.

Remarkable as these accounts are of the fertility of the soil—and they must, probably, be received with a grain of allowance—there are regions far short of California, which present immensely greater agricultural attractions. The great State of Texas is one of these. We will venture to say that Texas as much surpasses California in her agricultural capabilities, as California surpasses Texas in her mineral resources. General Clarke, one of the New-York commissioners, now on a visit to Texas to explore the proposed route for a Pacific railroad, writes from Port Graham, June 10th, as follows: "The agricultural resources and capacity of this country are absolutely marvellous to behold. It is capable of supplying the whole civilized world." It is destined to become the greatest sugar and cotton region in North America.

From all present indications, the wheat crop of the United States is likely to be, this year, very great. If we take Michigan as a general index to the state of the wheat crop in the West, the prospect is certainly very flattering. Information from different parts of that State, made by competent observers, shows, that the wheat crop of Michigan, the present season, is the most abundant one that has blessed the labors of our farmers for many years. It is represented to be as superior in quality as it is in quantity. A gentleman who has recently passed through the centre of the State declares, that though he has been long a resident of Michigan, and an attentive observer of the gradual development of her agricultural wealth, he has never before seen such fields of wheat, and so bright a prospect of a most fruitful harvest. New-York, too, presents a still more flattering aspect, in reference to the wheat crop. The *Albany Atlas* observes: "From all we can learn, we believe the quantity of wheat produced in this State, this year, will be nearly, if not quite, fifty per cent., greater than any previous year, and of even better average quality, high as the character of Michigan wheat and flour already is. As wheat has advanced in price in the same ratio as our plank roads and other means of reaching market readily have increased, we anticipate for our farmers a rich reward for their labors, and, of course, another year of prosperity for our State."

The demand for wheat, for exportation, is now very great, and increasing, and the highest prices are paid. The prospect abroad is most encouraging. The demand for American produce, of all kinds, in England, is on the increase. "The upward movement," says *The London Shipping Gazette*, of July 1, "has been caused principally by an unexpected and extensive demand for wheat for exportation to the Continent. Whether this will continue is a question; but certainly the prospect, at present, favors a continuance." The same authority adds:—"We have, on former occasions, given it as our opinion, that the unfavorable result of the last harvest in this country and in France would be sure to manifest itself sooner or later, and this belief induced us to expect a rise. We think that this would have occurred, even if there had been nothing else to favor an upward movement. When, therefore, other circumstances transpired to lead to the same conclusion—such as a bad seed-time, inauspicious weather in the spring and early part of the summer, and, lastly, the possibility of war between Russia and Turkey—we looked upon an advance to some extent as certain.

"How high prices of wheat might be driven up if the export demand should continue, it is impossible to foresee; while, on the other hand, there is nothing in the present position of affairs to lead to the conclusion that quotations can give way materially."

The consequence of a Turko-Russian war would be, that all that immense quantity of wheat which has hitherto flown into the English markets, would immediately cease to flow in that direction. It would all be absorbed at home. The produce of the Baltic, too, would be stopped; and then England's only reliance for wheat and other products would be on America. The demand for our products would be enormous, and prices would probably exceed all previous rates. How much England is dependant on the Mediterranean and Black seas for corn, may be seen from the following:—" In taking a review of the foreign corn trade for the last few years, and comparing the present sources of supply with those we have habitually considered as the natural purveyors of food to England, we are struck with the change that has taken place. America and the Baltic were formerly looked upon as our granaries in times of dearth. They are now totally inadequate to meet our requirements, even in ordinary seasons. Their yearly surplus falls short of our yearly wants. It is from the fertile districts which border the Mediterranean and Black seas that we now derive not only cur largest and most regular supplies, but also the most copious and earliest relief, when suffering from a deficient harvest. The hiatus caused by the diseased potatoes and the mildewed wheat of last season, would have caused this nation many millions more than will now be required, were it not for the previously organized trade between England and the ports of the Black Sea, by means of which our increased demand will be met without that extravagant enhancement of prices, freights, &c., which would otherwise have taken place. The total quantity of grain, (wheat, Indian corn, &c.,) imported from foreign ports in the year 1852, was 6,750,000 qrs., of which no less than 3,350,000 qrs. were supplied from ports in the Mediterranean and Black seas; and it is probable that the relative quantities during the present year will exhibit still more forcibly the importance of that branch of the grain trade which forms the subject of the present report."*

Brighter prospects were never before held out to the agricultural world of America than at present. All the wheat and corn that the present crop can produce, is certain to find a ready market at greatly advanced prices.

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* Report on wheat, Indian corn, and other grain, from the Mediterranean and Black seas, for 1852.

Art. XIII.—PROGRESS OF RAIL-ROAD IMPROVEMENT.

THOMAS GRAY, THE INVENTOR OF RAIL-ROADS—NEW-YORK RAIL-ROADS—ILLINOIS, OHIO, AND NEW-ENGLAND RAIL-ROADS—THE SOUTHWESTERN RAIL-ROAD IN KENTUCKY AND TENNESSEE.

STRANGE as it may now seem, not farther back than 1820 there was not a rail-road in existence. Now they form an iron network over this country and Europe, and have almost annihilated space, in like manner as the magnetic telegraph has almost annihilated time. Doubtless most people, in these times of universal intelligence and universal travel, are well acquainted with the progress of rail-roads; but how few there are who can tell us anything about the author or inventor of that wonder of the 19th century—the *Railway System.* It is so, too, with the authors of most of the great and useful inventions of the age. How little is generally known of Whitney, the inventor of the cotton gin, of Watt, of Fulton, and of a hundred other ingenious men whose inventions have made the age what it is! Their works live after them, and are likely to live for centuries; but their names, by a seeming ungratefulness of the age, are suffered to sink almost into oblivion. Neither Whitney nor Fulton have even a statue among us to perpetuate their memories; and as to the author of rail-roads, there may not be twenty persons in the United States who ever heard his name, although we believe he is still living.

About half a century ago, the exact year is not known, there was born at Leeds, England, a man named THOMAS GRAY; scarcely anything more than this is known of his early history. He was, we believe, a poor collier; and being very ingenious, he conceived the idea of facilitating the transportation of coals from the Middletown colliery to Leeds, a distance of about three miles, by means of a sort of railway which he constructed of wood. Upon this his cars moved along at the rate of about three and a-half miles an hour, to the great merriment of a wise and discriminating public, who laughed at the idea of a railway as something very visionary, and as the mere suggestion of laziness. Poor Gray thought otherwise. Magnificent visions of future rail-roads, such as are now stupendous realities, loomed up before him, and he began to talk in public, of a general system of iron rail-roads. He was, of course, laughed at, and declared a visionary moon-struck fool. But the more Gray contemplated his little railway for coals, the more firmly did he believe in the practicability and immense usefulness of his scheme. He saw in it all that is now realized, and he resolved, in spite of the ridicule, the sneers and rebuffs that were heaped upon him, to prosecute his great undertaking. He petitioned the British parliament, and sought interviews with all the great men of the kingdom; but all this had no effect, except to bring down upon him, wherever he went, the loud sneers and ridicule of all classes. Still he persevered, and at length he engaged the attention of men of intelligence and influence, who finally embraced his views, urged his plans, and the grand results are now before the world. Thomas Gray, the inventor of rail-roads, who, not longer ago than 1820, was laughed at for even mentioning the idea of them, still lives in Exeter, England, in the full realization of all his grand and noble rail-road schemes, for which he was declared insane. How much has the world been benefitted by his insanity!

But the world is still that same ungrateful, soulless thing that it always was. What has it done for Thomas Gray? An English writer, whose name we cannot give, thus speaks of him: "Up to 1846 he had been neglected. While thousands had been enriched by the consummation of his brilliant scheme, he remained forgotten—forced by poverty to sell glass on commission for a living." Howitt, in the *People's Journal*, a few years ago, gave a somewhat lengthy sketch of his career, thus bringing him into public notice. We have seen nothing in print in relation to him lately. Elliot wrote a great truth in these words:

> "How many men who lived to bless mankind
> Have died unthanked!"

How many of the railway projectors, agitators, stockholders, &c., have ever heard of the subject of this brief sketch?

The subject of rail-roads has become so extensive, that a tolerable sketch of them all, in the United States alone, would require a considerable volume. We shall, however, undertake to unfold, briefly, the present condition of all the principal railroads in the several States of the Union, in some two or three numbers of the Review.

It was not until after the completion of the Erie Canal, in 1825, that the perfect adaptability of rail-roads to the purposes of commerce began to be generally admitted; but it was soon demonstrated that they were fully adequate to supply the place of rivers, and to save the expenditure of millions of dollars in the construction of canals. New-York took the lead in the great rail-road movement; and with that State we shall begin.

The first continuous line of rail-road to connect the tide water of the Hudson with the great lakes, was that from Albany to Buffalo, following very nearly the route of the canal. Though until 1851 this road was embarrassed by a heavy state tax, as a sort of protection to the business of the canal, that tax is now removed, and the road is now in free competition with the canal. There is, however, more business than both can do. The canal is to be enlarged so as to admit vessels of 224 tons. The enlargement will be completed in three years after it is commenced. The rail-road, too, is to have a double track throughout, which it already has from Albany to Syracuse. From the latter place a new road is nearly completed to the Niagara river, composed of the straight line between Syracuse and Rochester, and the Rochester and the Niagara Falls road. This will make its business capacity almost unlimited. It touches Lake Erie at Buffalo, and Ontario at Sackett's Harbor, Cape Vincent, Oswego, and Lewiston, by branches already in operation; and by lines in progress, at Great and Little Sodus Bay, and at Rochester.

At Albany it connects with the Hudson River and Harlem roads, the former of which will have a double track; and at Buffalo, the connection is with the great roads of Ohio.

Next is the great New-York and Erie Rail-road, which has cost $27,000,000. It is the greatest work of internal improvement ever attempted in this country, and its construction is the greatest achievement of the kind yet realized. The road and all its structures are on the most complete and magnificent scale. As it approaches Lake Erie, its western terminus, and Hudson River, its eastern, the road spreads out into a number of independent lines, forming at each terminus a sort of *Delta* to accommodate its immense business. Its outlets to tide-water are at Newburgh, Piermont, and Jersey City. At the two former places the company have extensive grounds for the reception, storing and forwarding of merchandise. With only one terminus, it is found to be impossible to accommodate its immense business, without great confusion, delay, and increased cost.

On the western part of the line, important branches radiate from the main trunk, striking the lakes at all the points above-named, and at Dunkirk. By means of these branches, or "feeders," in the technical language of rail-roads, the trade of the West is intercepted at almost every point on lakes Erie and Ontario, and conducted into the main trunk. Measures are also in progress to connect the road with Erie, on the lake, in Pennsylvania, by a line running direct from Little Valley; and also with Pittsburgh, by the Alleghany Valley Rail-road. The immense capacities of this great New-York and Erie Rail-road for business, and the important relation it sustains to the commerce of the whole country, gives it the first rank in the world of rail-road enterprise. It was opened for business on the 1st of June, 1851, and its business and revenues, thus far, have exceeded the most sanguine expectations. Its influence upon western commerce, and its entire capacity for draining the regions it penetrates, are not yet fully tested. It is probable that, immense as its capacities are, it will be found, quite inadequate to carry off the immense flood of products that will pour in upon it.

Another great branch of this road will be the Albany and Susquehanna Rail-road, which is commenced, or about to be commenced. It will extend from Binghampton to Albany, 143 miles. The city of Albany has taken its stock to the amount of $1,000,000, in addition to large private subscriptions.

The following table shows the cost of the public works of New-York, which have been constructed, or are in progress, with a view to their becoming avenues of the trade and travel between the East and West:

Hudson River rail-road	$12,000,000
Harlem rail-road	4.873,317
Utica and Schenectady rail-road	4,143,918
Albany and Schenectady rail-road	1,740,449
Syracuse and Utica rail-road	2,570.891
Rochester and Syracuse rail-road, (both lines)	6,464.362
Buffalo and Rochester rail-road	2,228,976
Rochester and Niagara Falls rail-road	1,600,000
Oswego and Syracuse rail-road	588,768
Rome and Watertown rail-road	1,500 000
Sackett's Harbor and Ellisburgh rail-road	350 000
New-York and Erie rail-road	27.000,000
Canandaigua and Niagara Falls rail-road	3,500,000
Buffalo, Corning and New-York rail-road	2,000,000
Buffalo and New-York city rail-road	1.500,000
Albany and Susquehanna rail-road	4,350,000
Erie and Champlain canals	26,000,000
For enlargement of Erie Canal	9,000,000
	$111,410,681

This table does not include several roads, the cost of which cannot yet be estimated.

The rail-roads from the city of New-York to Montreal, the great city of the St. Lawrence, and the commercial emporium of the Canadas, constitute a very important route of commerce and travel, passing as they do through a long succession of large and flourishing towns. This great route consists, for most of the distance, of two distinct lines—the Hudson River and Harlem roads, from New-York to Albany; and second, the Troy and Boston, Western Vermont roads, Albany and Northern, and the Rutland and Washington roads, extending from Albany to Rutland, Vermont. From Rutland, north, only one line is in operation, composed of the Rutland and Burlington, Vermont and Canada, and Champlain and St. Lawrence rail-road. A road is projected along the west shore of Lake Champlain, which, when completed, will give two distinct lines from New-York to Montreal.

As we shall hereafter return to the subject of rail-roads in New-York, we cannot, in this paper, notice all in the State. A late report of the New-York and New-Haven road has recently been made, from which it appears that the total earnings of the company for the year ending April 1, were $800,713 19. The current charges were $380,052 82—paid Harlem road $67,170 06; leaving, with the surplus from last year of $20,382 54, a dividend of $12,800 on Harlem stock, and interest charged to cost of second track, $27,500, a sum of $428,173 35 to pay interest, taxes, dividends and other liabilities. $20,000 were paid to the New-Haven and Springfield road; $21,679 20 for personal damages; the loss on extension lease is $26,988 80—deducting which items, there is a surplus of $20,385 75 wherewith to commence the new year. The cost of the road and equipments is now $4,318,601 60, not including the expenditures for property not entirely appropriated to the use of the road, and which cost $654,685 54, making a total expenditure of $4,978,487. The capital stock is $3,000,000, and sundry loans, accounts, &c., $132,487 14. The passenger trains have run 356,897 miles; freight trains, 89,228 miles; gravel and other trains,7 ,872 miles—making a total of nearly five hundred thousand miles. The whole number of passengers moved in the trains by the above service is 966,753.

Mr. McAlpine, the state engineer, has recently made a general report on all the roads of the State of New-York during the past year, from which we gather many interesting statistics. Regarding the transportation of passengers, the following is interesting:

The whole number of persons carried in the cars, on 29 rail-roads, was	7,440.653
Thenumber of miles travelled was	343,358,545
The whole number of passengers injured was	82
Of whom were killed	26
The whole number of employés injured was	80
Of whom were killed	60
The whole number of others injured was	94
Of whom were killed	76
Making the total number injured	265
Of whom were killed	162

For every 18,206,098 passengers carried one mile, one was killed; and for every 4,136,850 passengers carried one mile, one was injured or killed. The classification of these accidents is as follows:

	Killed.	Injured.
Jumping on or off trains in motion	18	7
Fell or thrown from trains	29	9
Collisions of trains	12	45
Trains thrown off the track	14	8
Run over, while walking or standing on the track	76	14
Collisions with vehicles at road crossings	2	3
At work on or standing by trains	11	11
Standing on platforms	1	0
Defective machinery	3	3
Other accidents	5	3
Total	162	103

The reports of the accidents are very defective—in some cases stating that several persons were injured, without specifying the number. The newspapers have, in some cases, given accounts of accidents of which the reports make no mention, or have stated that a larger number of persons were injured than are returned in the reports from the rail-road companies.

The number of passengers carried on fourteen rail-roads, in 1851, was 3,901,151, and the miles travelled, 187,835,332.

The whole number of persons injured on these roads in 1851, was 137, of whom ninety were killed.

The following shows the statistics regarding 30 of the roads in the State:

The aggregate length is 1,901¾ miles.	
Do. do. amount of capital is	$53,963,550 00
Do. do. amount of stock paid in is	43,567,562 84
Do. do. amount of funded and floating debt is	41,742,671 86
The annual rate of interest on the funded debt is from 6 to 7 per cent., being generally 7 per cent.	
The total cost of road and equipments is	84,034,456 20
The average cost per mile of single track is	36,701 89
The aggregate length of miles laid is	1,819½
Do. do. length of miles laid, including double track and slidings, is	2,277 3-10
The aggregate number of locomotive engines is	446
Do. do. number of passenger cars is	447
Do. do. number of baggage, mail, emigrant and second class cars is	272
The aggregate number of freight cars is	4,695
The average speed of passenger trains in motion, miles per hour, is	26½
The average speed of freight trains in motion, miles per hour, is	15¼
The average weight of passenger trains, exclusive of passengers and baggage, tons	45.37
The average weight of freight trains, exclusive of freight, tons	95.41
Aggregate tons carried*	2,206,622
The aggregate number of miles run by passenger trains is	4,421,449
The aggregate number of miles run by freight trains is	3,086,379
The average distance travelled by each passenger is, miles	46 1-10
The average number of passengers per train	77 6-10
The average distance each ton of freight is moved, miles	83 2-10
The average number of tons of freight, per train	59 4-10
The average cost per mile of single track, for maintenance of way.	$440 44
The average cost per mile run by passenger train, for repairs of machinery, is, cents	16.98
The average cost of same for freight trains	16.53

The average cost of operating the roads per 1,000 passengers carried one mile, classified under different heads, is as follows:

	1,000 passengers.	1,000 tons freight.
Office expenses and stationery	11 cents.	17 cents.
Agents and clerks	40 "	75 "
Labor, handling, freight, loading, &c		$1 34 "
Porters, watchmen and smithmen	37 "	23 "

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* This amount includes the tonnage sent from one road to another, which is repeated in the reports as many times as it is carried upon separate roads, and therefore presents an aggregate much greater than the actual tonnage.

	1.000 passengers.	1,000 tons freight.
Wood and water attendance	14 cents.	10 cents.
Conductors, luggage and brakemen	64 "	86 "
Engineers and firemen	59 "	82 "
Fuel	$1 68 "	$2 17 "
Oil and waste for engines	24 "	28 "
Do. do. cars	11 "	24 "
Loss and damage of goods or baggage	3 "	25 "
Do. do. to persons	12 "	5 "
Do. do. to cattle and property	4 "	5 "
General superintendence	13 "	19 "
Contingencies	59 "	45 "
Total	$4 62	$7 81

The aggregate proceeds of twenty-six roads were as follows:

From passengers	$6,212,215 43
Do. do	4,105,629 72
From other sources	592,078 82
Total	$10,809,923 97

The aggregate payments, other than for construction, were as follows:

For transportation	$5,101,676 70
For interest	2,205,099 90
For dividends	2,155,852 24
For surplus fund	14,848 76
Total	$9,477,477 60

In the northwest, rail-roads are extremely flourishing, and rail-road enterprise is putting forth its energies with the most happy results. The great Cairo and Chicago line will soon be completed. The contractors are making rapid progress. There are now over 10,000 men engaged on it. Over one hundred miles of it is already in operation, viz.: from Chicago to Kankakee, and from La Salle to Bloomington. About two-thirds of the distance from Cairo to the junction is graded and ready for the rail. This includes the first and second division, upon both of which the track-layers are about commencing their labors. On the second, the work will commence at Big-Muddy River, for which place an engine and cars for the construction train have just been sent down. On the first division it will commence at Lower Cash River, where an engine is daily expected. A large amount of materials for the superstructure have been landed at both these points. Within a year from this date, the road will probably be opened its entire length between Chicago and Cairo.

In Ohio, too, rail-roads are highly prosperous. The Cleveland, Columbus, and Cincinnati Rail-road declared a dividend of five per cent., payable on the 1st of August. The same Company have called for an instalment of twenty-five per cent. on the new stock, payable on the 1st of August, as above.

A report on the Galena and Chicago Union Rail-road is now before us, from which it appears that the earnings of this road, for the year ending May 1, 1853, were $473,548. The expense of running the road for the same time, was $187,396.

The success of rail-roads in New-England may be seen from the following dividends that have been lately declared for the last six months:

	Per cent.		Per cent
Boston and Worcester	3½	Lexington and West Cambridge	3
Eastern Rail-road	3	Stonington Rail-road	3½
Boston and Providence	3	Boston and Maine	4
Fitchburg and Worcester	3	New-York and Harlem	4
Western Rail-road	3½	Boston and Lowell	3
Taunton Rail-road	4	Rutland Rail-road	4

Some of the western roads do better than this, as will be seen by the following:

Indianapolis and Madison	5 per cent.	Southern Michigan	7 per cent
Little Miami	5 "		

One of the most important roads in the country is the Southwestern Rail-road, traversing central Kentucky and Tennessee, connecting Danville, in the former state, with Manchester, in the latter. The project is one of first importance, and we are glad to see that its construction has fallen into the hands of enterprising, efficient and wealthy contractors, who will open the road at the earliest possible day:

This road extends from McMinnville northeasterly through Middle Tennessee to the Kentucky State line, 87 miles, forming a part of the direct road from Cincinnati to Pensacola, Mobile and New-Orleans. Nearly every portion of this line is now in progress of construction, from Covington through Lexington, Danville, McMinnville, Winchester and Guntus Landing to Selma, on the navigable waters of the Alabama river, from which point it is proposed to construct one road to Mobile and another to Pensacola. A road is also constructing from McMinnville, through Talahoma to Florence in Northern Alabama, there to connect with the New-Orleans and Great Northern Rail-road. At Winchester it connects with rail-roads already in operation from Nashville to Charleston and Savannah.

The Southwestern road runs along, parallel to, and immediately at the foot of the Cumberland mountains, located on a table land from 5 to 40 miles wide, and six hundred feet above the general level of West Tennessee. On account of its position, with reference to the natural features of the country, it commands the most desirable location for a north and south road through the State.

A glance at the map will show the great importance and value of this line of roads. Cincinnati is one of the great central points of rail-roads north of the Ohio river. She has nine great trunk lines, radiating to the east, the north and west, while on the south this is the only line of roads now constructing, forming the most direct connection with the Gulf of Mobile and Pensacola. Extending with its connections on the north from the lakes to the Gulf, it passes through eleven degrees of latitude, yielding every variety of agricultural production. The local business arising from an interchange of these would alone liberally support such a road.

We shall continue monthly these sketches of rail-road progress in the United States, giving the latest information that can be obtained.

Art. XIV.—MISCELLANEOUS.

EAST TENNESSEE; ITS MINERAL WEALTH—GOLD OF NORTH AND SOUTH CAROLINA —DIAMONDS IN NORTH CAROLINA—GEORGIA; ITS RESOURCES, RAIL-ROADS, AND GREAT PROSPERITY.

THE great movement now going on, to penetrate by means of rail-roads, and to connect with Charleston, Mobile, and New-Orleans, the beautiful and fertile region of East Tennessee, naturally leads us to inquire into the resources of that part of the Republic, in order to form a just estimate of the value and prospects of those great works of internal improvement now so rapidly progressing.

The climate of East Tennessee is somewhat diversified, because of its valleys and lofty mountains; and her salubrity, whether upon the mountains or in the valleys, is unprecedented. No epidemics have ever prevailed within its borders, and it is at the same time free from any causes which can or do produce diseases local in their character.

The water of the same region is various. The limestone, freestone, chalybeate, sulphur waters, &c., &c., gush from every hill-side. Some of these mineral waters have attained much celebrity, because of their sanatory properties.

The *soil* of the valleys, and, in many places, upon the mountains, is as fertile as the alluvium which lies on the water courses of the southern countries, and is capable of affording subsistence to a population one hundred times greater than that now inhabing the country.

The *timber*, though now regarded in many instances of but little value, is every day being more highly appreciated. The boundless forest of hemlock, of white and yellow pine, of cedar and oak, which can now be purchased, immediately upon some of the principal water courses, at prices of from *ten* to *twenty* cents per acre for the ground upon which they grow, is a fact which will strike the minds of the farmers who use the bark of the hemlocks, and of builders who use the other timbers in other parts of the country, with much surprise.

But East Tennessee excels particularly in its mineral resources. Its *iron* is sufficient in quantities to supply the world for centuries. This is of various qualities, some of such excellence that it is preferred above every other iron for steamboat boilers, because in no instance has a boiler, made of this iron, been known to explode. Here it may be manufactured into pigs at *ten dollars per ton*, and that, too, in establishments where but little capital is employed.

Also *copper* has been discovered, and miners are now at work digging it out of the bowels of the mountains, which were once thought to be worth not one cent per acre, and yet the copper ore is yielding silver enough to pay all the expenses incident to the preparation of the copper for market.

Lead is everywhere, we may say, and will continue to be esteemed, as it now is, almost valueless, being in the way of the plowshare, until some one more discerning and more enterprising than any one now among us, shall show to us that in bars and pigs, it, like our iron, is worth silver and gold.

Zinc, too, has been discovered, and a step made towards bringing its value to light; a Northern company, in connection with one of our own citizens, having obtained a lease of one mine, and having it in contemplation to manufacture the metal.

Plumbago is found in heaps as large as a mountain, but is esteemed as of no value, because no one chooses to make it valuable.

What renders East Tennessee still more valuable, is, that *coal* there is almost as abundant as the iron, and, in many instances, is found upon one side of a water course, which is but a succession of rapids, while iron is upon the other. Both the anthracite and bituminous are found in abundance.

Of *marble*, an endless variety and inexhaustible quantity has been discovered, though but few and partial searches have been made. From the jet black, susceptible of the finest polish, there is every hue and shade of variegation to the pure white.

The hydraulic limestone has recently been discovered in the greatest abundance in the immediate vicinity of Knoxville, and only awaits, to demonstrate its value, a capital that will prepare five hundred thousand barrels of the cement for the markets in which it may be sold, at a lower figure than can be borne when the article is furnished from any other point.

Salt is abundant, and capital is now being employed in sinking wells, and preparing furnaces, &c., for its manufacture.

The half is not yet known of the valuable natural resources of this Switzerland of America. It is immensely rich in every gift of nature pertaining to its latitude. Its natural scenery is always beautiful, and, in many parts, grand and sublime.

Some very interesting notices have recently appeared of the mineral wealth of North and South Carolina. Dr. Daniel Asbury, of Charlotte, North Carolina, has recently published a report on the gold and copper mines of Gold Hill, Rowan county, North Carolina. From the statistics given by Dr. Asbury, it appears that the Gold Hill mines have afforded $1,500,000 since their discovery in 1843, and that their exploration has led to the growth of a village of above eight hundred inhabitants, situated directly over the mines. The gold region covers about one square mile. The veins are numerous, well defined, of large size, and are judged to be of unending depth, as they are entirely vertical in their positions. They are already down in some places as deep as 350 feet. The average yield of the ore, by the first process, is $1 50 per 100 lbs. The sands are then re-washed five times by different parties. The same report also refers to the mine of Dorn, in Edgefield, South Carolina. In this mine, the report says, it has been a very common result for the hands to average $50 each per day! A single blast of powder has often thrown out $500 in fragments of gold, which the miner could at once step forward and gather up in his hands! This mine is now yielding $200,000 per annum, with a force of scarcely more than twenty men.

Equally remarkable is the abundance of *copper* found in North Carolina. The superintendent of the North Carolina Copper Mining Company has very recently published an account of the celebrated Fentress mine, from which we derive the following particulars:

The mine is situated ten miles south of Greensboro', Guilford County, N. C., on the geological range between the slates and granites, which is the great metalliferous line east of the Alleghanies. The mine was formerly worked for gold, the vein having been explored to the depth of sixty feet; but the working was about to be abandoned on account of the gradual disappearance of the precious metal, while the yellow sulphuret of copper began to be more frequent; to which, though then disregarded on account of its not being auriferous, the great success of the mine at the present day is wholly due.

The vein is situated entirely on the Company's property, no trace of it having been found on the adjoining lands, although they have been eagerly grasped by speculators; but in the comparatively short extent of the vein, it has proved to be the best in the country, and, compared with the crack veins of Europe—probably the richest and largest ever discovered. While at the surface the thickness of the vein is inconsiderable, at the depth of sixty feet it measures five feet, and at seventy feet has increased to over eight feet, the regular dip beginning about this part in such a manner, that while the inclination of the hanging wall is thirty-five degrees, that of the lower wall is forty-five degrees; thus occasioning, for every few feet advanced, an increase of a foot in the thickness of the vein.

The vein is a regular one, and consists of alternate layers of quartz and copper pyrites, both containing small quantities of iron pyrites and spathic iron: the aggregate thickness of the pure copper pyrites, containing 33 per cent. of metal, being about one-half of the whole vein.

Several other copper mines, says the same authority, have been discovered in the vicinity of Wheal Pioneer, and in all probability North Carolina will soon assume the name of Copper State, if only the new discoveries will be one-tenth as valuable as this mine; and greatly as the copper region will contribute to the richness of the State, the mining operations will not fail to confer a still greater benefit than wealth on the inhabitants, in stimulating them to enterprise and energy, and thus gradually and surely advancing the cause of enlightenment of society.

These accounts from North Carolina have created quite a sensation in the mining world, and several new mining companies have recently been formed to operate in the gold and copper veins and deposits of North Carolina, and an immense amount of capital has been invested.

All these accounts have received further confirmation recently from Prof. C. U. Shepard, who has just returned, says the *Charleston Courier*, from a fortnight's exploration in the counties of Mecklenburg, Union, Cabarras and Rowan, that the prospect of an abundant supply of copper ore is afforded by the indications presented in the mines of those counties. The great metalliferous region known as Gold Hill, in Rowan, and which, next to the famous Dorne's mine in this State, is the most productive deposit of the precious metal in the United States—is perhaps the most promising repository for copper thus far brought to light. Other places may hereafter prove equally rich; but the gold veins at Gold Hill, being already worked to a depth of nearly 350 feet, afford the most favorable opportunity in the country for judging the character of that spot for copper—a metal which rarely shows itself in much richness at the top of the ground. Already, from the depths referred to, tons of merchantable copper ore are daily raised; and the indications are such as to lead the professor to predict, that Gold Hill will very speedily acquire a character for copper as distinguished as that which it has long since established for gold.

The professor, while in Charlotte, was presented with a diamond, by Dr. Leventhorpe, a late graduate of the Medical College. That gentleman had lately discovered it on his estate at

Pioneer Mills; and this is the second specimen of this precious gem found within the year in the county. Hitherto, no special search has been made for the diamond, these specimens having been discovered in a manner purely accidental.

Georgia, now deservedly called the Empire State of the South, naturally suggests itself after South Carolina. Let us note some of its resources and its rising greatness. Once one of the youngest and weakest of the "Old Thirteen," Georgia has now become one of the strongest of the thirty-one states of the Republic. She has exported $30,000,000 worth of cotton in a single year, or more than six hundred thousand bales. Fifteen millions of her own capital are invested in her own rail-roads, and nearly one thousand miles of rail-road are completed within the borders of the State. Georgia labor as well as Georgia capital has done much of this work, and what is to be performed, in consequence of the present high prices of labor, will be mainly done at home. The contractors of roads here and in Alabama despair of completing the roads seasonably or economically at Northern prices for wages; and slaves will be taken from the cities and plantations to perform the usual labor of white men upon the routes agreed upon as soon as they are surveyed.

The South, which has so long been behind the other states in matters pertaining to internal improvement, has now fairly become awake to a sense of their immense importance. Mobile, within the present year, voted, in a single day, one million of dollars, to connect the ocean with the Chattahooche river, which separates Georgia from Alabama. Southern states are all lending a helping hand to those enterprises where help is needed. About six millions of dollars have been voted to secure the interior trade of the country, and to bind the sea-board and rivers with the back country. Georgia, in this spirit of enterprise, is covering the country all over with roads. There is not only the route from Alabama to Chattanooga on the Tennessee River, but Savannah is struggling for a connection with the ocean via Brunswick, thence across the country to Florida. The hope is to make this the great mail route South.

Art. XV.—EDITORIAL AND LITERARY.

The present efficient head of the War Department has, in a very short time, organized and sent out four surveying parties to examine and report upon the practicability of the various routes proposed for the construction of the great rail-road to the Pacific Ocean. With the limited appropriation made by Congress, he could only confine himself to such routes as had been the least explored. That by the Gila, in which the whole South

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is so much interested, and in which Col. Davis, as a Southern man, must have a like interest, has been previously pretty well ascertained; and whatever deficiencies of information may exist in regard to it, will be supplied from the results obtained on other lines. The South is already well fortified in her advocacy of this route, and it is believed that all the facts which can be gathered in regard to the others, will only strengthen the claims of the Gila. At all events, this case will be fairly put before the country, and there can be no other way of convincing other sections than by the facts. These we are in a fair way of having at the very next session of Congress.

The time has at last arrived, when the *unanimous* voice of the country is for the road, and for such government aid as will secure its immediate construction. We cannot wait for fifty years, or even for twenty. So far as the road will pass through the territories, the power of Congress in the matter cannot be called in question, without disputing that sovereignty there, which even the strictest constructionist, Mr. Calhoun, has always maintained. Under the "war" power, or that of the "common defence," Congress is entirely free to aid in the construction of the road as a measure necessary to the protection and preservation of our Pacific coast, and less expensive than would be the navy and the army, and the fortifications, which would otherwise have to be kept there. The maxim is, "in peace prepare for war," and not in "war prepare for war." Can we say when (considering our foreign relations) such *preparation* is unnecessary?

We give the organization of the surveys:

The first of these expeditions is undér the command of Major Stevens, late of the Engineer Corps, and now governor of Washington Territory, and has for its object to survey the region stretching from the upper Mississippi to Puget's Sound. It proceeds from St. Paul's, in the territory of Minnesota, to the Great Bend of the Missouri river; thence to the table-land between the Missouri and Saskatchawan rivers to the most available pass in the Rocky Mountains, surveying the best passes in the Cascade range, and in the Rocky Mountains, from the 49th parallel to the head-waters of the Missouri. It is part of the object of this expedition to determine the capacity of the whole region of its survey to supply, and of the Missouri and Columbia rivers to transport, the materials for the proposed railway. We learn that a satisfactory report has already been received from Major Stevens, giving assurance that he is already engaged in his operations far beyond the western frontier of the United States. He expected to leave St. Paul's before the first of June.

A second expedition, under the command of Lieut. Whipple, is to survey the region of our western territory adjacent to the parallel of 35 deg. It will proceed from the Mississippi along the head-waters of the Canadian, cross the Rio Pecos, and enter the valley of the Rio del Norte, near Albuquerque; thence through Walker's Pass in the Rocky Mountains, to the Pacific, at some point on the coast of southern California, near San Pedro, Los Angelos, or San Diego.

A third expedition, under the command of Capt. Gunnison, will pass through the Rocky Mountains, near the head-waters of the del Norte, by way of the Heurfano River, into the valley of the Green and Grand Rivers; thence westwardly along the Nicollet River of the Great Basin ; thence north to the Lake Utah, surveying on a return route the best passes of the Wasateh range, through the coal basin, into the forks of the Platte.

A fourth expedition is to operate in California. Its field is the region west of the Lower Colorado to the Pacific. This expedition, starting from Benicia, in California, will examine the passes of the Sierra Nevada from the San Joaquin and Tulare valleys, together with the whole country southeast of the Tulare lakes, to ascertain the best route between Walker's Pass, or any other practicable passes in that region and the mouth of the Gila, and from that point to the Pacific at San Diego.

We have omitted to notice the Convention of Southern Planters, which met in the early part of the summer at Montgomery, Alabama. This Convention resolved itself into a *Southern Planters' Association*, and elected the Hon. S. B. Gilmer, of Georgia, President, and Dr. N. B. Cloud, Editor of the " American Cotton Planter," Secretary. The Association will meet hereafter, annually, at different points. The next meeting will be in Columbia, S. C. The results of the Convention, says a Montgomery paper, " from the comparison and concert of opinions and actions, are calculated to be of eminent benefit to the Planting States ; and, if its meetings are continued for a few years in the same spirit, will be likely to produce a complete revolution in the course of trade, and in improved Southern Agriculture. Senator Toombs' address was, in its main features, one of the most lucid and convincing arguments ever produced on the subject—close and compact as a granite wall, clamped, layer by layer, and built up with bolts of steel, impenetrable and immovable."

In a late number of that most excellent monthly, the " Western Journal," published at St. Louis. Mr. Tarver, the senior editor, admonishes us of an omission to credit him with the authorship of the paper published in our *Industrial Resources*, at page 107, vol. 2, entitled " Manufactures in the South and West." Mr. Tarver is right, and we make the *amende*. He *did* write the article, which appeared first in the Review with the proper credit, and it is one of the ablest and best, we believe, that ever emanated from any quarter. It is far from us to desire to appropriate any of the laurels of Mr. Tarver ; and nothing could afford us more pain than the discovery of an omission which was entirely unintentional. In any future edition, the error shall be corrected. In the meanwhile, we cannot forbear the occasion to express our admiration for him as a writer and a statist. His work is eminently deserving of support

We have received the July, 1853, number of the *Southern Quarterly Review*, under the editorial control of William Gilmore Simms, the well-known Southern novelist and writer. The Quarterly preserves a high character everywhere. The article on the " State of Parties and the Country," is able and impartial. Dr. J. C. Nott, of Alabama, contributes an interesting paper on the " Aboriginal Races of America." Colonel Hammond continues his valuable articles on the Mexican war. The remaining articles are of no less interest and merit ; while the review of Mrs. Stowe's " Key" is worthy of particular notice, being a critical analysis of her work as a novel. The " Critical Notices" are very full, and will be found both useful and interesting.

TO ENGINEERS.—A paper has been sent us from Raleigh, N. C., signed a " Civil Engineer," proposing a Convention of the Civil Engineers of the Southern and Western States, at Charleston, S. C., at some period to be designated near the close of this year. The purpose of this Convention will be, to consider the general interests of the profession in its bearings upon the internal improvement system of this country. The suggestion comes from many respectable engineers ; and they propose a preliminary meeting at an early day, to fix the time and place of this Convention. They also propose that engineers favorable to the plan shall address the Editor of this Review, and give him the power to name the day and place for the preliminary meeting. The Editor cordially sympathises in this movement, and will cheerfully do anything to promote it. His present address is Washington, D. C.

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Art. I.—THE NORTHWEST.*

THE commendable zeal, liberality, and industry of our government, in fitting out expeditions for the exploration of different portions of the world; the masterly manner in which those corps are conducted, and the splendid *Reports* of the several chiefs, give us ample evidence of their ability to discharge the trust reposed in them, at the same time that our national pride is highly gratified when we compare these labors and publications with those of other kingdoms.

The *Report* of the Exploring Expedition, by Lieut. Wilkes, is one of the best works ever published, on the general natural history of the different portions of the globe visited by him. The style of composition is chaste, plain, and terse, while the style of artistic description and embellishment reflects the highest credit on all concerned in issuing that ponderous work.

The same may be said of Lieut. Lynch's Explorations of the river Jordan and the Dead Sea; he has dissolved the mists of error which so long obscured that holy region, and shed a blaze of light where so long brooded darkness and mystery.

And when we turn our eyes to the vast unknown and unexplored regions of our own land; that long, wide waste of *terra incognita*, our own *western wilds*, we come with joy and pleasure to lay our offerings at the feet of those who have traversed, explored, and made known. Prominent amongst these are Lewis and Clarke, Astor and Emory; but the great chief of all, the Magnus Apollo, is J. C. Fremont, whose toils and hardships, whose labors and sufferings, whose bravery and endurance, tower aloft in majestic grandeur, like the lofty turrets of the Sierra Nevada.

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* Report of a Geological Survey of Wisconsin, Iowa, Minnesota and Nebraska. By Hon. D. D. Owen, M. D., United States Geologist. By authority of Congress.

Greece had her Argonauts; but the glory of their achievments is clouded by the stain of murder and theft. The Trojans had their Æneas; but war, debauchery, and bloodshed tracked his course. Spain had her Pizarro and Cortes; but every sin in the long, black catalogue of crime, disgraced their names and their deeds. England had her Cook; but he was cut off in the maturity of his prime, before he could reap the glorious reward merited by his indefatigable toils. Can it not be justly said of Fremont, that he performed the labors and exploits, and achieved the ends effected by each of these characters? Like Cook, he explored unknown regions; like Cortes and Pizarro, he subdued savage tribes; like Æneas, he settled a new empire; and like Jason, he found more than the *golden fleece*—he has thrown millions into the treasury of the world.

But let us not lose sight of our original purpose, which is to lay before our readers a brief outline of Dr. Owen's Geological Report. This report is embraced within a large quarto volume of 638 pages, letter press, and is embellished on nearly every page with admirable wood cuts, descriptive of beautiful scenery, noble waterfalls, and castellated rocks; together with various specimens of geological and lithological strata, &c. Appended to the volume are 27 plates, executed in the highest style of art, displaying fossil remains of shells, plants and animals, together with 20 folded maps, exhibiting the stratification of all the region explored. But the most striking feature of the book is an immense *geographical* and *geological* map, four feet long, and two feet four inches wide, exhibiting the rivers, lakes, &c., and also showing, by different colors, the location and extent of the coal fields, lead, copper and iron beds, and the various strata of limestone, granite, sandstone, &c. It is a book worthy of our nation, fully answering the purpose intended, and reflecting the highest credit on its author. If the reader is disposed, we will endeavor to make him more intimately acquainted with the volume and the region of country it treats of; and to do this we will be compelled to use, in a great many cases, the words of the writer himself, and his assistants:

"The country, which has been carefully examined, and of which the geological features have been determined,* is the most extensive ever reported by any geologist or geological corps in this country, including, as it does, more than four times as much territory as the State of New-York, and being about twice and a half as large as the Island of Great Britain.

"The map reaches from lat 38° to lat. 49°; and from long. 89° 30′ to long. 96° 30′. In other words, it has a length from north to south of upwards of seven hundred and fifty miles, from St. Louis to the British line; and an extreme breadth of about three hundred and fifty miles; embracing the Mississippi and all its tributaries, from its source to its junction with the Missouri, as high as Council Bluffs; the Red River of the north, from its source to the northern boundary of the United States; together with the northern and southern shores of Lake Superior, from Fond du Lac, north to the British dominions, and east to the Michigan line. The average width of the territory thus laid down being about two hundred and seventy miles, its area exceeds *two hundred thousand square miles.*"

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* Introduction, page 17.

"Throughout this vast district, all the principal streams which water it have been explored, to the number of *ninety-one*, and more than a fourth of these have been navigated from their mouth almost to their source, in bark canoes."

"*Coal* and *iron* in abundance have been found, and other valuable minerals, and their localities carefully determined."

"The coal-measures of Iowa are shallow, much more so than those of the Illinois coal field. They seem attenuated, as towards the margin of an ancient carboniferous sea; not averaging more than fifty fathoms in thickness. Of these the productive coal-measures are less than a hundred feet thick. The thickest vein of coal detected in Iowa does not exceed from four to five feet; while, in Missouri, some reach the thickness of twenty feet and upwards.

"*Lignite* was found on the Mankato river and its branches, which approached the cannel coal in its character. Although search was made, no regular bed of lignite was found. All the fragments we gathered, when put together, only weighed about ten pounds.

"The only mineral that promises to be of much value in this region of country, is a bed of *nodular iron stone*, found at a number of localities on the Mankato and Lesueur rivers, in beds varying from one to three feet in thickness.

"There are several *salt springs* on Soap Creek, in Davis county, but the proportion of brine is small. By boring, a stronger water might possibly be obtained.

"Though deficient in productive minerals, such as are reserved by the Land Office, a large proportion of this district consists of *rich, fertile soil*, well adapted to all agricultural purposes. Of such is a large portion of the Iowa coal field, and the region lying north both of that and of the Illinois coal field, as far as the Falls of the eastern tributaries of the Mississippi. Some of the lands of the Des Moines and Cedar rivers can be scarcely excelled for fertility, perhaps, in the world.

"On the other hand, there are portions of the district, chiefly in the vicinity of the sources of the Chippewa and Black rivers, and of the streams flowing north into Lake Superior, which are, in fact, so hopelessly arid, that in our generation they will as-surely never be purchased or occupied. These refuse lands amount to upwards of *fifteen thousand square miles.*

"A circumstance which to some may seem trivial, will delay, to a considerable extent, the settlement of a portion of the district. It is the prevalence, especially on the Upper Wisconsin, Chippewa, St. Croix, and Black river countries, and thence north to Lake Superior and to the British line, of *venomous insects*, in such insufferable quantities, that, at certain seasons, they destroy all comfort or quiet, by day or by night. Among the pineries of Northern Wisconsin, and more or less throughout the whole of the above designated region, the *buffalo-gnat*, the *brulot*, (so called by the voyageurs, from *bruler*, to *burn*, the sting producing a burning sensation,) and the *sand-fly*, to say nothing of the myriads of gigantic mosquitos, carry on an incessant war against the equanimity of the unfortunate traveller. I, and other members of the corps, when unprovided with the necessary defence, have had our ears swelled to two or three times their natural size, and the line of our hats marked all round by the trickling blood. It was often necessary to rise many times in the course of the night, to allay the fever of the head by repeated bathings; and, at some of the worst spots, we could scarcely have discharged our ordinary professional duties at all, without the constant protection of mosquito nettings, worn over our head and face.

"The health, even of the more marshy portions of the district, seems better than from its appearance one might expect. The long bracing winters of these northern latitudes exclude many of the diseases, which, under the prolonged heat of a more southern climate, the miasma of the swamp engenders. Perhaps the healthiest portion of the whole district is along its northern limit, where it is coterminous to the British dominions. At the Pembina settlement, owned by the Hudson's Bay Company, to a population of five thousand there was but a single physician; and he told me, that without an additional salary allowed him by the company, the diseases of the settlement would not afford him a living."

Upon looking at the map of this country we are struck with amazement at the great number of lakes of all sizes and shapes. An attempt was made to enumerate them, but was given up; however, on a space of about sixty miles square, we counted *two hundred* of these basins of water. These lakes furnish several varieties of excellent fish, which are caught by the Indians or settlers with spears, hook and line, and gill-nets. They are the abode also of myriads of water fowl, which at times annoy the voyageur with their discordant cries.

In order that the reader may have some idea of the amount of labor performed by Dr. Owen and his corps, and also to show the extent of the coal fields in this new territory, we will give a short extract from the report.

"The carboniferous limestone in Iowa, if we commence where it crosses the Des Moines, between the mouth of that river and the Missouri line, ranges north as far as the confluence of the Iowa and English rivers; then, for about forty miles, it is lost to surface view; reappearing, on the Iowa river, in Tama county, and ranging thence in a northwesterly direction, towards the head of that stream; there, however, it is, to a considerable extent, covered up from view by the drift, showing itself in such cases only in the cuts of streams. From the source of the Iowa, it sweeps off in a westerly course, towards the Missouri; its northern boundary on that stream being a few miles below the mouth of the Sioux river; thence it bears south, down the valley of the Missouri, to the State line.

"This zone of limestone has an average width of twenty-five miles; it circumscribes, with a short interval, the great coal field which occupies the whole of southwestern Iowa, extending north to latitude 42° 30′; and separates it from the Illinois coal field by a calcareous belt, varying in width from twenty-five to fifty miles.

"Of this coal field (in Iowa alone, not including its extension south into Missouri), the dimensions are as follows: Its average width from east to west is less than *two hundred miles*; its greatest length from north to south, about *one hundred and forty miles*; its contents, about 25,000 square miles. It extends, measured in a direct line, nearly two hundred miles in a northwesterly direction, up the valley of the Des Moines.

"After crossing the Iowa boundary line into Missouri, the boundary line of this coal field bears nearly south, through Clark, Lewis, and Marion counties, to near the junction of the three forks of Salt river; thence through the western part of Ralls county, towards the head waters of Rivière au Cuivre, in the eastern part of Audrain county, and northwestern corner of Montgomery county; thence it sweeps in a southwesterly curve through Calloway county, towards the Missouri river, which it crosses near its confluence with the Osage; leaving a belt of country some ninety miles wide, between this coal region and the outcrops at Charbonnière, and the coal pits worked on Rivière des Pères, in St. Louis county. These are, in fact, outliers of the Illinois coal field. From the Missouri river the boundary bears, with a westerly curve, up the valley of the Osage, north of that river, which it crosses, but for a very limited distance only, at three points: in Camden county, near the mouth of Niangua; in St. Clair county, near the mouth of Sac river; and in Bates county, near the confluence with the main river of the Little Osage. Thence the line bears, with a northerly curve, towards the western confines of Fayette, re-crossing the Missouri at Wellington; thence up the valley of that river, keeping from ten to twenty-five miles from the river, to the State line."

Gypsum is found in a few places. On the Upper Des Moines, below Lizard Fork, a large and very rich bed is formed; its average thickness, over an area of two miles square, may be put at twenty feet, which would give 2,787,840,000 of cubic feet. Or, as the specific gravity of this plaster stone is about 2.2 (giving 137.5 pounds as the weight of a cubic foot of gypsum), upwards of *a hundred and ninety millions of tons.*

The following extract will give some idea of the fertility of some portions of the country, and its adaptation to agricultural purposes.

"The carboniferous rocks of Iowa occupy a region of country which, taken as a whole, is one of the most fertile in the United States. No country can present to the farmer greater facilities for subduing, in a short time, wild land. Its native prairies are fields almost ready made to his hands. Its rich, black soil, scarcely less productive than that of the Cedar Valley, returns him reward for his labor a hundred-fold. The only drawback to its productiveness is that, on some of the higher grounds, the soil, partaking of the mixed character common to drift soils, is occasionally gravelly; and that here and there, where the upper members of the coal-measures prevail, it becomes somewhat too siliceous.

"The general agricultural character of the country on the Red River of the North is excellent; the land being highly productive, especially in small grain. The principal drawbacks are occasional protracted droughts, during the midsummer months, and during the spring, freshets, which, from time to time, overflow large tracts of low prairie, especially near the 'Great Bend.' Its tenacious subsoil insures its durability.

"The land best adapted for wheat and most small grains, and in which the proportion of earthy, saline, and organic matter is distributed in the best proportion to impart fertility and durability, is the soil based on the calcareous and magnesio-calcareous rocks, and which particularly characterises the country bordering on the Mississippi and its tributaries, between the 41° and 45° of latitude, with an average width of twenty to thirty miles west of the Mississippi.

"The rural beauty of this portion of Iowa can scarcely be surpassed. Undulating prairies, interspersed with open groves of timber, and watered with pebbly or rocky-bedded streams, pure and transparent; hills, of moderate height and gentle slope; here and there, especially towards the heads of the streams, small lakes, as clear as the rivers, some skirted with timber, some with banks formed by the green sward of the open prairie; these are the ordinary features of the pastoral landscape.

"For centuries, the successive natural crops of grass, untouched by the scythe, and but very partially kept down by the pasturage of buffalo and other herbivorous animals, have accumulated organic matter on the surface soil to such an extent, that a long succession, even of exhausting crops, will not materially impoverish the land. The prairie-sod, matted and deep-rooted, usually requires from *six to eight yokes of oxen* effectually to break it up.

"The future farms of Iowa, large, level, and unbroken by stumps or other obstructions, will afford an excellent field for the introduction of mowing and reaping machines, and other improved implements calculated to save the labor of the husbandman; and which, in new countries reclaimed from the forest, can scarcely be employed till the first generation shall have passed away.

"In this connection, it may not be out of place to remark, that, so far as the mere support of life is concerned, taking into account the amount of labor required to do it, this region is equal, if not superior, to many portions of the settled States. The *rice fields*, which require neither sowing nor cultivation, only harvesting, cover *many thousands of acres*, and yield all that is essential for breadstuffs; but, in addition to this, *corn* can be cultivated with as little or less labor than in the Middle States. *Potatoes*, far superior in size and flavor to any I have ever seen in the Ohio Valley, are grown with little attention; and turnips and beets produce abundantly. 'The *Rice Lakes*' are most liberally distributed in the sections about the head waters of the Red Cedar, Nemakagon, St. Croix and Snake rivers, in the south, and the sources of Big Fork and Red Lake rivers in the north. The Indians make annual visits to the rice regions toward the end of August, for the purpose of gathering a supply for the winter. These fields also attract immense numbers of water-fowl."

Nature has also made ample provision for the sustenance of life by a supply of esculent roots, such as the swan potato; also artichokes, whortleberries, huckleberries, immense fields of cranberries of the most delicious quality, sugar maple, &c. The Indians and half breeds make their sugar in the spring of the year, in March and April; and an industrious man can make during the season from *one thousand* to *fifteen hundred pounds*, the trees producing from four to ten pounds each. Sugar is with the Chippewa an article of food; and the sugar-making season is hailed with joy, as putting a period to the starvation of winter.

The following additional particulars being quite interesting about the growth and habit of the *wild rice*, we cannot refrain from introducing it. It is found in the botanical list of Dr. C. C. Parry:

"*Lizania aquatica*, wild rice—'Pshu' of the Sioux; 'Manomin' of the Chippewas. This aquatic grass, not uncommon in the northern United States, acquires in the northwest an economical importance second to no other spontaneous production. It is the only instance in this region of a native grain occurring in sufficient quantity to supply the wants of ordinary consumption. It is particularly abundant on the lake-like expansions of rivers, towards their sources, which give such a marked feature to the distribution of these northern streams, and is so grandly illustrated in their main type, the Mississippi. It seems to select, by preference, the lower terminations of these expansions, which generally debouch by a narrowed outlet, and considerable fall, constituting rapids. It is in these situations best exposed to the proper degree of inundation, and finds a suitable bed of the slimy sand, in which it grows most readily. It is rarely met with on inland lakes which have no outlet. As an article of food it is highly palatable and nutritious, being generally preferred to the commercial rice. The grain is long, slender, of a brown color. In boiling, it puffs out to a pultaceous mass, and increases its bulk several times. It flowers in August, and is ready for gathering in September, which is conveniently done in canoes, the standing stalks being bent over the sides, and the grain beaten in. Its productive fields, at this season, harbor a great number of wild fowls, which obliges those who wish to secure a full crop to anticipate the gathering season, by tying up the standing grain into bundles, which gives at the same time a claim to the crop. When gathered, it is subjected to a process of parching and threshing, which, with the imperfect means at the command of the Indians, is the most tedious part of the business. This grain has been frequently introduced to the attention of cultivators, and is worthy of notice, not only for the value of its products, but the peculiar nature of the soil to which it is adapted, being necessarily unfit for any of our ordinary cultivated grains. As a native of the northwest, it is undoubtedly susceptible of increased production, and will, doubtless ere long, constitute as important an element in the civilized wealth of this region, as it now does in adding to the comforts of its wild inhabitants."

It may be as well to state, that Dr. Parry has arranged, in regular order, a list of the plants of this region, and they amount to *seven hundred and twenty-seven*, included in *one hundred and six* natural orders; many of these have never before been referred to this region. Amongst these plants is included the *lead plant*, *amorpha canescens*, and quite noted in Iowa and Wisconsin, from the prevalent belief that it points out the locality of minerals. Its value as a mineral indication may be summed up in this. It attaches itself with most luxuriance to rocky crevices and spots about which the peculiar dry earth, indicating a mineral vein, exists, and the miner is thus guided in making his excavations. Farther than this, any definite relation with the lead-bearing rock is sufficiently disproved by the extensive geographical range of this plant, from British America to Texas.

Particular attention was directed to the medicines and medicinal plants employed by the native tribes of Indians in the treatment of disease. But it was then as it ever has been with other explorers and observers, they found out little or nothing. Medicine, in the mind of the Indian, is always connected with *superstitious observances*, and is inseparably blended with his *religious* notions. The efficacy of the simplest remedies are attributed to some supernatural agency, and, as a consequence, more credit is given to the *manner of administering*, or the unmeaning ceremonies connected with it, than to the thing itself. With all this, an air of mystery is thrown over the subject, combining to render reliable information, on the one hand, difficult to obtain, and on the other, good for nothing when obtained. The subject, in fact, belongs more properly to the *moral* than the *natural* philosopher. The *medicine-men* are always *jugglers* or *priests*. And yet we have our papers crowded with advertisements and puffs of *celebrated Indian panaceas*, and Indian tonics, and Indian elixirs, and Indian catholicons, as though all our knowledge had been derived from these poor ignorant savages, and they alone had this true secret of curing diseases and prolonging life. It seems really that the whites are as fond of *mystery* and *jugglery* as the poor red men, and as soon as the ingredients of a nostrum are made known, its virtues are powerless.

The *forest trees* of this region are not different from those in the northern and New-England States:—Pine, cedar, fir, cypress, elm, beech, maple, sugar-maple, larch or tamarack, elm, ash, alder, box alder, cotton-wood, gum, birch, aspen, oak, bass-wood, poplar, white cedar, large "canoe" birch. The sugar-maple is an indication of good soil. In the region along the Red River of the North, from the mouth of the Psihu to the settlements, the air is scented, during the months of June and July, with a delightful perfume, arising from the *wild roses*, which form a thick shrubbery along the banks of the stream.

As we live in a utilitarian age and nation, and as our journal is devoted to utilitarian purposes and objects, we shall devote some space to the *lumber trade* and produce of the *lead mines*.

"On the Wisconsin river are (in 1847) 24 mills, running 45 saws, and sawing about 20,000,000 feet of lumber, worth at the mills about $6 per M., and 3,000,000 of shingles, worth $2 per M. Total for that year about $125,000.

"On Black river and its tributaries there were 13 mills, running 16 saws, and turning out 6,350,000 feet of lumber annually; 1,500,000 shingles, and 45,000 feet of square timber, all worth about $40,125.

"On the Chippewa and its tributaries there were 5 mills and 7 saws, which made 5,350,000 feet of lumber, 3,100,000 laths, 1,300,000 shingles, and 50,000 feet of square timber; there are also sent to market about 2,000 logs; all worth $56,900.

"On the St. Croix and its tributaries, 5 mills and 12 saws were in operation, which cut during 1848, 7,700,000 feet of lumber, 6,000,000 of laths, 100,000 shingles; besides 15,000 logs taken to market; all making $103,800. By the time this lumber reaches the market at St. Louis, its value is doubled, so that it will amount to a round total of half a million of dollars.

"According to the calculation made in the pine regions of New-York and the New-England States, of the quantity of lumber which one acre of ground will produce, *five thousand acres* of land must annually be denuded of its timber to furnish the lumber sent into market from the Chippewa Land District. A portion of this land, when deprived of its timber, is almost worthless.

"The Chippewa Land District is the country which must ultimately supply, with pine lumber, the whole Mississippi country below the Wisconsin river, and north of the mouth of the Ohio; for south of the Wisconsin there are no pine lands of any extent. The future importance and value of the trade can well be appreciated by those who have witnessed the rate of immigration into these vast and fertile plains of the United States, particularly when they consider the preference given to wooden buildings in the West, and the immense consumption of building material, not only in larger cities, but also for the construction of those numerous towns and villages, which spring up, as if by magic, along the shores of the Mississippi and its tributaries.

Besides these mills, there are others on streams emptying into Green Bay, running 58 saws, turning out 33,488,000 feet of lumber, worth $200,928. Owing to the cold weather in the winter season, the saws run only about half the year, or one hundred and eighty-two days, but they run day and night; they employ about 670 laborers in all, i. e. these last 58 saws.

Dr. Owen has ascertained the locality of lead ore in several different places in the region surveyed, and now under consideration, on the Mississippi river, Turkey river, Kickapoo river, Yellow river, Upper Iowa river, Wazi-oju river, Bad Axe river, and on the Iowa river in the Winnebago reserve, near the town of Lansing. Copper was also found at some of these points.

The amount of lead actually shipped from the mines at Galena, has been as follows:

Years.	Pigs of Lead.	Years.	Pigs of Lead.
1841	452,814	1847	771,679
1842	447,859	1848	680,245
1843	561,321	1849	628,934
1844	624,601	1850	569.521
1845	778,460	1851	472,608
1846	730,714	1852	400,000

Owing to the obstruction of the stream by ice, these shipments are made in nine months only, and sometimes less. The decrease for the last years has been caused, first, by laborers going to the war in Mexico, and afterwards to the gold mines of California.

As a pig of lead will weigh, on an average, 70 lbs., it appears, from the above table, that the annual produce has varied, in the twelve years enumerated, between nearly 54,000,000 lbs. and 28,000,000 lbs.

The constant theme of remark, whilst travelling in the region of the Upper Mississippi occupied by the lower magnesian limestone, was the picturesque character of the landscape, and especially the striking similarity which the rock exposure presents to that of ruined structures.

"The scenery on the river Rhine, with its castellated heights, has furnished many of the most favorite subjects for the artist's pencil, and been the admiration of European travellers for centuries. Yet it is doubtful whether, in natural beauty of landscape, it is not equalled by that of some of the streams that water this region of the Far West. It is certain that, though the rock formations essentially differ, Nature has here fashioned, on an extensive scale, and in advance of all civilization, remarkable and curious counterparts to the artificial landscape, which has given celebrity to that part of the European continent.

"The features of the scenery are not, indeed, of the loftiest and most impressive character—such as one might expect to witness on approaching the source of one of the two largest rivers on the globe. There are no elevated peaks, rising in majestic grandeur; no mountain torrents, shrouded in foam and chafing in their rocky channels; no deep and narrow valleys, hemmed in on every side, and forming, as it were, a little world of their own; no narrow and precipitous passes, winding through circuitous defiles; no cavernous gorges, giving exit to pent up waters; no contorted and twisted strata, affording evidence of gigantic uplift and violent throes. But the features of the scene, though less grand and bold than those of mountainous regions, are yet impressive and strongly marked. We find the luxuriant sward clothing the hill-slope even down to the waters' edge. We have the steep cliff, shooting up through it in mural escarpments. We have the stream, clear as crystal, now quiet, and smooth, and glassy, then ruffled by a temporary rapid; or, where a terrace of rock abruptly crosses it, broken up into a small romantic cascade. We have clumps of trees, disposed with an effect that might baffle the landscape gardener, now crowning the grassy height, now dotting the green slope with partial and isolated shade. From the hilltops, the intervening valleys wear the aspect of cultivated meadows and pasture grounds, irrigated by frequent rivulets, that wend their way through fields of wild hay, fringed with flourishing willows. Here and there, occupying its nook on the bank of the stream, at some favorable spot, occurs the solitary wigwam, with its scanty appurtenances. On the summit-levels spreads the wide prairie, decked with flowers of the gayest hue—its long, undulating waves stretching away till sky and meadow mingle in the distant horizon. The whole combination suggests the idea, not of an aboriginal wilderness, inhabited by savage tribes, but of a country lately under a high state of cultivation, and suddenly deserted by its inhabitants—their dwellings, indeed, gone, but the castle-homes of their chieftains only partially destroyed, and exhibited, in ruins, on the rocky summits around. This latter feature especially aids the delusion; for the peculiar aspect of the exposed limestone, and its manner of weathering, cause it to assume a resemblance, somewhat fantastic indeed, but yet wonderfully close and faithful, to the dilapidated wall, with its crowning parapet, and its projecting buttresses, and its flanking towers, and even the lesser details that mark the fortress of the olden time."

Dr. Owen has discovered fossil remains of extinct races of animals, different from any found in the eocene formations about Paris, or any of the European deposits. Also, several shells resembling those hitherto known, but not the same. His remarks on this subject are so pertinent and so beautifully written, that we with pleasure give place to them:

"The study of organic remains in rocks is, indeed, a most beautiful, a most fascinating research. What can be more extraordinary, than that we, the generation of the nineteenth century, should exhume from out the hard substance of the solid rocks the delicate forms of organic beings of bygone ages, and display to the wondering eye of the naturalist even their minute anatomical details! And this, not alone of races which inhabited this earth in times immediately preceding the human epoch; we are even permitted to contemplate, and restore to our perceptions, the very fishes, mollusks, and corals that swarmed in the carboniferous seas millions of ages ago. The animal matter composing their tissues and bones is indeed gone, but the simultaneous mineral infiltrations preserve a perfect counterpart. We can depict those remarkable and elegant forms of vegetation which constituted the forest that fringed the shores of that same treacherous and overwhelming ocean. We seize them in the very act of uncoiling their fronds, and unfolding to the admiring gaze of the botanist that luxuriant canopy of foliage that once waved in the sea-breeze, nurturing their stems. We accomplish even more than this: we can read the records of myriads of the lower order of animals, that date their existence yet further back than the time that gave growth to trees, now stored up as mineral fuel in the bowels of the earth—to times at least as long prior to the coal formation as that geological era is antecedent to the present time; we assign to each its place in the zoological system, and fill up gaps in the existing orders of the animal and vegetable kingdom.

"To think that we, at this day, can demonstrate the structure of the eye of some of these—the most ancient races—and even count the thousand lenses by which light was concentrated to the optic nerve, is truly astonishing! Is it then surprising that it should engage the most earnest attention of the closest philosopher, and awaken the enthusiasm of the enterprising explorer?

"But palæontology is not a study of mere curious, scientific inquiry; it has also its practical inferences, and these of the most important character, with their matter-of-fact bearings. For example, the *fossil corals* are found imbedded in the subcarboniferous limestones, and near the top of the series, *always* under the true coal-bearing beds, never above these, or included in them, and nowhere else. This geological fact holds good not only in Iowa, but throughout the entire range of the subcàrboniferous limestones in Indiana, Illinois, Kentucky and Tennessee. In not a single instance, from the range of the Cumberland Mountains on the east, to the interior of Iowa on the west, has a workable bed of coal been discovered in a position beneath the strata of limestone containing these corals. In these organic remains, then, we find the surest and most unerring guide in the search after this invaluable article of commerce, that warms our houses, that drives our steam engines, by which we navigate our rivers, lakes, and oceans; that propels the machinery by which we weave our fabrics; that reduces our iron, by which we cultivate our soil and carry on every conceivable mechanical operation; that refines our metals, that contributes to the production of both the necessaries and luxuries of life, and by which we transmit intelligence, with the swiftness of lightning, to stations the most remote. Without the knowledge of this fact, millions of dollars might be expended—have been expended—in fruitless and hopeless mining operations, after geological incompatibilities."

In the new and far-off region of Nebraska, in a section called *Mauvaises Terres*, or Bad Lands, Dr. Owen discovered, and has described, one of the most singular and picturesque geological freaks ever known:

"From the high prairies, that rise in the background by a series of terraces or benches, towards the spur of the Rocky Mountains, the traveller looks down into an extensive valley, that may be said to constitute a world of its own, and which appears to have been formed, partly by an extensive vertical fault, partly by the long-continued influence of the scooping action of denudation.

"The width of this valley may be about thirty miles, and its whole length about ninety, as it stretches away westwardly towards the base of the gloomy and dark range of mountains known as the Black Hills. Its most depressed portion, three hundred feet below the general level of the surrounding country, is clothed with scanty grasses, and covered by a soil similar to that of the higher ground.

"To the surrounding country, however, the Mauvaises Terres present the most striking contrast. From the uniform, monotonous, open prairie, the traveller suddenly descends, one or two hundred feet, into a valley that looks as if it had sunk away from the surrounding world, leaving standing all over it thousands of abrupt, irregular, prismatic, and columnar masses, frequently capped with irregular pyramids, and stretching up to a height of from one to two hundred feet or more.

"So thickly are these natural towers studded over the surface of this extraordinary region, that the traveller threads his way through the deep, confined, labyrinthine passages, not unlike the narrow, irregular streets and lanes of some quaint old town of the European continent. Viewed in the distance, indeed, these rocky piles, in their endless succession, assume the appearance of massive, artificial structures, decked out with all the accessories of buttress and turret, arched doorway and clustered shaft, pinnacle, and finial and tapering spire! One might almost imagine oneself approaching some magnificent city of the dead, where the labor and the genius of forgotten nations had left behind them a multitude of monuments of art and skill.

"On descending from the heights, however, and proceeding to thread this vast labyrinth, and inspect, in detail, its deep, intricate recesses, the realities of the scene soon dissipate the delusions of the distance. The castellated forms which fancy had conjured up have vanished; and around one, on every side, is bleak and barren desolation. Then, too, if the exploration be made in midsummer, the scorching rays of the sun, pouring down in the hundred defiles that conduct the wayfarer through this pathless waste, are reflected back from the white or ash-coloured walls that rise around, unmitigated by a breath of air, or the shelter of a solitary shrub.

"The drooping spirits of the scorched geologist are not permitted, however, to flag. The fossil treasures of the way will repay its sultriness and fatigue. At every step objects of the highest interest present themselves. Embedded in the debris lie strewn, in the greatest profusion, organic relics of extinct animals. All speak of a vast fresh-water deposit of the early tertiary period, and disclose the former existence of most remarkable races, that roamed about in bygone ages high up in the valley of the Missouri, towards the sources of its western tributaries; where now pastures the big-horned *ovis montana*, the shaggy buffalo, or American bison, and the elegant and slenderly-constructed antelope.

"Every specimen as yet brought from the Bad Lands, proves to be of species that became exterminated before the *mammoth* and *mastodon lived*, and differ in their specific character, not alone from all living animals, but also from all fossils obtained even from *contemporaneous* geological formations *elsewhere*. Along with a single existing genus, the rhinoceros, many new genera, never before known to science, have been discovered, and some, to us at this day, anomalous families, which *combine in their anatomy* structures now found only in different orders. They form, indeed, connecting links between the pachyderms, plantigrades and digitigrades. For example, in one of the specimens from this strange locality, we find united characters belonging now to the above three orders; for the molar teeth are constructed after the model of those of the hog, peccary, and babyroussa; the canines as in the bear; while the upper part of the skull and cheekbones, and the temporal fossa, assume the form and dimensions which belong to the cat tribe. Another, the *oreodon*, has grinding teeth like the elk and deer, with canines resembling the omnivorous thick-skinned animals; being, in fact, a race which lived both on flesh and vegetables, and yet chewed the cud like our cloven-footed graziers."

Other remains of animals of gigantic dimensions were found, combining the teeth of the tapir, the horse, and the hog. One of the jaw bones measured five feet, and one of the skeletons measured *eighteen feet in length, and nine feet in height.* Only one specimen of a truly carnivorous type of animals has been found as yet.

"The investigations connected with the geology of this curious country, and the natural history of its ancient fauna, are invested with no small degree of interest, when we consider that, at the time these singular animals roamed over the Mauvaises Terres of the Upper Missouri, the configuration of our present continents was very different from what it now is. Europe and Asia were then, in fact, no continents at all, being represented only by a few islands, scattered over a wide expanse of ocean. The Atlantic seaboard of the United States, back to the mountain ranges, and up the Valley of the Mississippi as high as Vicksburg, *was yet under water.* Mount Ætna, that remarkable volcanic cone of Sicily, nearly 11,000 feet in height, was yet unformed, and the fertile plateau of that island, more than 100 miles in circumference, was still deep under the tertiary Mediterranean Sea. In Europe, during the period following the extermination of the eocene fauna of Nebraska, the Alps have been heaved up nearly their whole height; and in Northern India, the whole Subhimalayan range has been elevated. In South America, 9,000 feet have been added to the height of the Cordilleras, and the South Atlantic has been driven back 700 miles, while a district of country 2,500 miles in length, from the great plain of the Amazons to the Straits of Magellan, has emerged from the ocean.

"The eocene tertiary formation is of modern date when compared with the paleozoic division below the coal-measures, that is, *geologically* and *comparatively* speaking; estimated in time—by a human epoch—the eocene tertiary is immeasurably great—utterly beyond the grasp of our conceptions to appreciate, counted by single years, comprising, as it does, a cycle of geological events that has completely changed the whole physical geography of the world—turned continents into oceans, and oceans into dry lands; and this, not by one grand *bouleversement* of the earth's crust, but by a long series of gradual changes, which, except at certain periods of paroxysmal throes, occasionally occurring at long and distant intervals, was probably as slow and gradual as the present rising of the coast of Sweden out of the ocean, and the simultaneous subsidence of land over the bottom of the Polynesian archipelago.

"When we turn to the forms of the extinct animals of the Mauvaises Terres, which lived, as we have seen, during the dawn of the tertiary period; bearing in mind the fact, that, at the time they flourished in Nebraska, the Alps were just lifting their heads out of the ocean, how strange must it appear to the reflective mind, that the comparative anatomist, at this day, should be able to read their history—to restore them by minute descriptions, and thus embody them to the imagination as in their pristine and animated condition. Yet far more vividly do these facts come home to the individual who beholds and handles the specimens themselves. Some of them, disencumbered of the enclosing matrix, are still in such a perfect condition, and present so fresh an appearance, that the light is reflected back from the enamelled surface of the teeth with as much brilliancy as from highly polished steel. Were it not for their ponderous character, and their strange physiognomy, one might well suppose them to be the bones of recent animals, which had been bleached but for a season."

Having thus glanced at this magnificent report of Dr. Owen's Exploring Expedition, and given some extracts from it to show the design, style, and character of the work, we leave off as we begun, by saying, that it reflects the highest credit on every one concerned. There are many more points which might be dwelt upon: of the various beauties of the region explored; the natural stone bridges; the splendid stone arches adorning the shores of Lake Superior, and its numerous isles; the natural mounds adorning the prairies; the beautiful animals, birds and fishes, seen and tasted; together with the merry scenes of the bivouac and the camp-fire, and the hardships and privations suffered; the scanty meal; the weary and lonely journey; the frost, and snow, and ice, as well as the scorching sun; all giving variety and zest to the three years of laborious scientific employment.

Art. II.—REVOLUTION OF SOUTHERN TRADE.

A REPLY TO THE OBJECTIONS OF THE LONDON ECONOMIST AGAINST THE MEMPHIS CONVENTION OF SOUTHERN PLANTERS; AND AN EXAMINATION OF ITS THEORY OF LABOR, AS ILLUSTRATED IN THE WHITE FREE SYSTEM OF EUROPE, AND THE BLACK SLAVE SYSTEM OF THE UNITED STATES.

A RECENT number of the London Economist contains an article of some length upon the subject of the Southern Convention which assembled at Memphis on the 6th of June last. The article alluded to republishes from the London Times an extract of a letter from its New-York correspondent of the 7th of the same month, in which the motives of that Convention are ascribed by the Times' correspondent to be not a little influenced by the "silly manifestations of superficial philanthropy so pompously displayed at Stafford House." The writer of the "Economist" is not surprised that the "superficial philanthropy" has had an unfavorable influence in "the States;" "but neither the jealousy of that," he proceeds to say, "nor the political jealousy of the Northern States, is a fair commercial motive which can insure the Memphis Convention the least shadow of success."

Singularly enough, this writer, after enumerating the many commercial objects for which this Convention assembled, all of them having for their motive the extension of the commercial intercourse of the South, in connection with the manifold enterprises contemplated by the construction of a rail-road to the Pacific—a route across the Tehuantepec Isthmus—the establishment of commercial steamers between the Southern ports and Europe—the opening a trade with the rivers Amazon, Oronoco, and La Plata, &c., &c.; singularly enough, we say, that enterprises, having for their object the extension of such vast commercial advantages, and the breaking down of huge commercial monopolies, should be stigmatized as the "*Slave-owners' project against free trade.*" Since, however, the subject of the Southern Convention is to be disconnected from the "superficial philanthropy" which surrounds the question of slavery, and is to be considered with reference to its practical results, it is of some importance to regard the commercial objections of so high an authority as the "London Economist." We are the more impressed with the importance of these objections, from the value attached to them by the republication of the article of the Economist in many of the papers throughout the Northern States; and these unaccompanied, as far as we have observed, with comment. As long as "superficial philanthropists" and mendicant fanatics, upon the subject of southern slavery, both in the United States and in Great Britain, confine their philanthropic jargon to a senseless tirade against the South, because its cotton is the growth of slave labor, they are unworthy of any other consideration than that of pity, after they have been exposed to the public derision, and consigned to public contempt, like any other class of detected impostors. To them, indeed, cotton might for ever remain a myth, as well as common sense continue a mystery. Neither of these commodities are of any possible use to such a class. With them, the world could get on just as well without either. Destroy the growth of cotton, and the grand millennium of fanaticism will have been accelerated a hundred years. The new reformers would then have a fine opportunity of testing the practicability of a novel idea. That invisible garment, which has become the invaluable necessity of our modern civilization, might be, in carrying out this destructive idea of cotton, abandoned; and the innocent simplicity of these modern Arcadians might have their natural tastes gratified by a return to the primitive days of Adam and Eve. In the absence of the hope of the immediate realization of such an idea, let them form themselves into a grand society for the encouragement of the growth of the cotton worm; that active philanthropist causing the southern planter at times great uneasiness in its periodical visitations, in destroying the prospect of a cotton crop. Should the suggestion be adopted, let penny subscriptions be made to promote the grand object.

Leaving all these fanatical absurdities, however, to weigh down their own folly, let us turn to the opposite scale, and see how the matter is to be adjusted; and here we are brought to the consideration of the practical bearing of the views entertained by the writer of the Economist on this subject.

After enumerating the many obstacles which the proposed plans of commercial exchanges between the Southern States and European ports would produce—to supersede the monopoly of the cotton trade by the Northern cities of the United States and Liverpool, as far as possible—the writer goes on to point out the various dangerous innovations which such an arrangement over established regulations would create; and proceeds to illustrate, by comparison, many of the recognised principles of political economy, which he contends such an innovation would violate in commercial transactions.

Beside the difficulties growing out of these formidable obstructions, the writer of the Economist invokes, in behalf of the planters of the South, the experience of the history of monopoly in Europe, which he contends, should their plans be carried out, or attempted to be accomplished, would have been written for them in vain.

Without viewing this question in any light of sectional hostility, but as one having for its object the placing of southern interests upon a firmer foundation of commercial independence, and as claiming for the Southern States of this confederacy a fair understanding of their political relations with the rest of the States, and a vindication of their commercial importance, in the face of great domestic misrepresentations, before Europe; we see nothing in this "movement" which calls for such serious apprehensions of impending calamities as those anticipated by the London Economist. That any disturbance in the present system of commercial exchanges between the United States and England would be attended with some temporary embarrassments, there can be no doubt; but these do not justify the disastrous consequences threatened by this writer. In the examination of commercial questions, we are accustomed to hear a great deal said upon the so called established axioms of political economy in their influence upon great commercial enterprises, and in the probable effect of these upon the "established regulations of trade;" and the "Economist" finds a powerful argument in defence of its views in these "established axioms," as governing "established regulations," or, what it more strikingly denominates, "natural laws of commerce."

The whole history of commerce has been so rapidly written on the face of the globe, since the great changes that have occurred since the close of the eventful fifteenth century—a close of its volume, indeed, which added to its immortal pages the discovery of a new continent, and the navigation of a new ocean to the European world; illustrating the one with the picture of a new empire in the West, and opening to the other the glories of a mighty conquest in the East—its whole history, we say, has been so rapidly written, in rapid changes since these great events, and such a powerful impetus has been given to its movements by subsequent discoveries, that it is impossible to curb its giant strides by any prescribed rule of the political economist, who, with a measure in hand, should attempt to confine its dimensions to this or that part of the new or the old world.

The regulations, growing out of the natural laws governing commercial exchanges, doubtless facilitate commercial intercourse; but these do not demand any perpetual laws, or prescribe any undeviating rule. The history of the commercial revolutions of the world has been "written in vain" for the Economist and its followers, should they entertain this idea—to adopt the language which it employs in speaking of the influence of the history of monopoly upon the southern planters; and this history, without any unnatural causes operating upon old States in every instance, but marked by a natural impetus given to the unexplored resources and undeveloped advantages of new. These have operated, not when powerful commercial communities have been on the decline, but when they had attained the height of their influence; and when smaller, or less important communities, had just began to develop their power. To go no further back in the researches of this history than the period which changed the commercial face of Europe, in the doubling of the Cape of Good Hope and the discovery of America, let us examine the influence which these two great events exerted over the most powerful empire of commerce of modern times—the Venetian Republic. Her colonies and factories forming a chain extending from the head of the Adriatic to the Black Sea, and from Suez, along the Red and Arabian seas, to the Indus. This great power, which had been dictating commercial laws to the world—which had vanquished, if not annihilated all rivals, began to find her commercial importance wane, not so much at this period by foreign war or internal corruption, which subsequently followed, as by the *change given to the course of trade* by an inferior European power. The discoveries which were calculated to advance the commerce of the world for centuries, were regarded by her as calamities overcoming her to decide her fate. In establishing numerous ports in Africa and the Indies, from the Cape de Verds to Canton, scarcely had a quarter of a century elapsed since the celebrated voyage of Vasco de Gama, than the Portuguese commerce commanded an immense area of coast, which the Venetian Republic but recently controlled. Failing in all her naval resources to place a power which had in thirty years become, in respect to the Indian commerce, what Venice had been, she attempted to negotiate with Lisbon for the purchase of all their Indian products, with the privilege of *monopolizing their sale with other nations.*

We are prepared for an answer to these allusions to a comparatively remote period of commercial changes, that they bear no analogy to the movements of the present day; and that they were brought about by a combination of circumstances, and these mainly controlled by natural causes. However much force there may be in this proposition, and whatever influence there is to be ascribed to natural laws governing commercial transactions, yet if the written history of any movement which has affected the destiny of mankind is worth anything, it is in the analogy which can be traced, however remote, in its results upon its age, and to the subsequent changes which have marked the progress of the world. Thus, there may be found no direct connection with the period to which we allude and the commercial events which mark the present era; yet there can be traced some resemblance, though in a remote degree, to that gigantic agency which the Venetians sent to Lisbon to acquire, of the commerce of the Indies, for the rest of Europe, and the monopoly, as agents, *for the rest of Europe*, which one port in England enjoys, of the great staple product of the South of the United States.

A great advancement in navigation, it is true, and great advantages accruing to the Portuguese therefrom, followed by the conquests which daring commercial enterprises enabled them to achieve in the East, had much to do, doubtless, in changing the commercial face of Europe in the beginning of the sixteenth century; and these wonderful achievements may have been wrought, by carrying out the favorite theory of the writer of the Economist, through following the "natural laws" of commerce.

But what are the "natural laws of commerce?" It is a very comprehensive code, and not limited to the mere discoveries of a day, or the advancements of an age. The "natural laws of commerce" taught the world to follow the boundless track of Columbus across the Western Continent; but before he led the way it was unnatural to believe it existed. They taught the European world to follow another intrepid navigator around the Cape of Tempests, as the Cape of Good Hope was called before Vasco de Gama doubled it, directing a new course to the East. The "natural laws of commerce" were again governed, when a small vessel of 300 tons burthen sailed from a southern port in 1819, to cross the ocean by steam, and which was subsequently followed by steamers of the largest burthen, crossing in the period of nine days, a few hours and some minutes, which are at the severe calculation of *exactly* the correct number, by enterprising owners and rival commanders; and yet, before the success of this ocean steam navigation, the so called "natural laws of commerce" had not discovered its practicability. On the contrary, many who spoke for "natural laws" and "established customs," denounced such an enterprise as a "foolish attempt" that would interfere with them,—as impracticable and as chimerical.

The same "natural laws of commerce," which followed the discovery of America; the doubling of the Cape of Good Hope; the navigation of the ocean by steam; and the other great events of the present and the past age, will follow the building of the rail-road to the Pacific—the opening of the great commercial treasures which are locked up in the waters of the Oronoco, the La Plata, and the Amazon—the route across the Tehuantepec isthmus—the extension of the resources of the Southern States beyond the commercial limits to which they are now circumscribed by the "established customs" of those who have abused and profited by them. The so called "natural laws," indeed, would have left the sun a mystery to the earth, and the ocean a problem to the world, had not a modern astronomer traced the relation of the one to the laws governing the universe; and a modern navigator penetrated so far into the depths of the other, as to discover the hidden mystery which shut out from the knowledge of all, but the All-seeing Eye, the nestling place upon its western bosom, of a new-born world.

Leaving the general themes which all these interesting inquiries suggest, however, we shall proceed to the examination of a branch of the London Economist's article, which, for its numerous fallacies, we shall quote entire, so that the impartial and intelligent reader may be enabled to judge of the strength of the grounds upon which they are attempted to be established:

> "It is pitiable," proceeds the writer, "but not inexplicable, to see the new community in the States adopting the exploded errors of the old communities of Europe. The notion of making trade flourish by regulations, and of enriching individuals and nations by monopolies, to extort something from somebody else, is given up in Europe—*except amongst workmen*, who combine and strike just like the Memphis Conventionists, and amongst the statesmen of the Czar, whose country is yet too barbarous to be able to appreciate any kind of freedom. The explanation of such opinions being still cherished *in the States, in Russia*, and *amongst ignorant workmen* is, that all of them are in much the same stage of civilization. The real physical facts on which civilization depends, are the proximity and rapid communication between men. Now, in the States and in Russia, the population is yet relatively small in comparison to the surface of the country occupied; and amongst workmen there is comparatively—from want of time, intense occupation in daily labor, and other causes—little intellectual communication. They are all, therefore, likely to fall into similar errors, and

to imagine that strikes, monopolies, regulations, and unions, can produce results, which those who live in close and continual contact with others, and with all the business of life, know are brought about by general laws, totally different from strikes, combinations, or regulations. Regulations cannot influence the seasons, nor make men industrious. Those in question are generally intended to obtain for some parties the rewards of industry without being industrious. They are to procure by violence towards men, what nature has decreed to be the gain of those who wrestle peacefully with her. Such errors, founded on the expectation of obtaining by force and cunning from other men the natural rewards of toil, are common *amongst all half-barbarous people;* and are found, accordingly, amongst *the operatives who strike, the planters who combine, and the arbitrary rulers of Russia, who never communicate freely with any persons.*

"The planters have amongst them *another element of barbarism and error.* They are accustomed to obtain their ends by the use of coercion. Slave-labor is necessarily coerced labor; and the planters, from coercing Sambo, fall naturally into the error that they can coerce the market. But the use of one coercion is incompatible with the other. The slaves cannot be coerced without being continually maintained. They are costly instruments of production, and the commodities they raise must be sold to procure them clothing and subsistence. A slave establishment that produces all the commodities it requires, and sends nothing to market, may be independent; but the instant it works for a market, it becomes dependent on that both for its sales and its purchases. As the planter must provide for his population, he must often sell his produce for that purpose. A slave population hampers its owner in more ways than one, and there is some reason to believe that the low price at which slave-raised produce is sold, is the consequence of the necessity which the slave-owner is under to sell, in order to maintain his people. The responsibility of the employer of free labor is at an end when he has paid the covenanted wages; and his greater advantages in dealing in the general market are exemplified, *that there are more fortunes made by the employers of free labor, than by slave-owners.* The Astors, the Girards, and the Longworthys, are the millionaires of the States; as the Rothschilds, the Lloyds, the Barings, are the millionaires of the world—not the slave-owners, however wealthy, of Carolina, Cuba, or the Brazils. The bondage of the planters to their own slaves will prevent them from becoming the masters of the market; and meeting in convention at Memphis, will not lesson their dependence on the capitalists of New-York and Liverpool. *Their Convention is a foolish attempt to turn trade from its course, which was beyond the power of Bonaparte, and it will not be compassed by the planters.*"

In order to mark the more glaring inconsistencies of these statements, we have placed a portion of them in italics. "The notion of making trade flourish by regulations, and enriching individuals and nations by monopolies, to extort something from somebody else, is given up in Europe—except amongst workmen who combine and strike, just like the Memphis Conventionists," &c. &c.—"and this condition of semi-barbarism, shared equally by the ignorant workmen of Europe, the statesmen of the Czar of Russia, and the Memphis Conventionists, is not inexplicable," as existing in the "new community" of the States; as the writer of the Economist affectedly calls the southern portion of the United States confederacy. And why not "inexplicable?" "That all of them are in much the same stage of civilization." We shall not stop to inquire how far the advanced state of civilization in Europe has left the "ignorant workman" in a state of semi-barbarism. We shall leave the "real physical fact" on which that problem depends, to be elucidated and explained by the writer of the Economist himself. We notice this part of his singular proposition more particularly, in his theory about the institutions of the Southern States, to mark how strangely it contrasts with a subsequent theory he advances, in favor of free labor, as that freedom exists among the "ignorant workmen" of Europe, and the free labor of the Northern States. And what is the great virtue which the Economist discovers, in support of his European free labor system, which leaves the "ignorant workmen" in a state of semi-barbarism? Why, it produces the Rothschilds and the Barings in Europe, who are the bankers of the world; and as it exists in the United States, certainly untrammeled by the elements of barbarism and ignorance, as represented to be its characteristics in Europe, it produces such *millionaires* as the Astors, the Girards, and the Longworthys!

Without caring to know how far the planters of the South should consider it a source of congratulation, that their "communities" are exempt from a "semi-barbarous" system, which reduces *white free labor* in Europe to such a state of social degradation, and which, as it exists in the north of the United States, has claimed for its chiefest merit that it produces such millionaires as the Astors, the Girards, and the Longworthys—without caring to know how far the results of this system affect the southern planter, it would be a matter of interesting inquiry to examine how much the "ignorant workmen" are benefited by it. It may be a source of great pride to point to the wealth of millionaires, as the result of a great system of free labor; but we cannot see the extent of that boasted advancement in civilization, which leaves the "elements" of that system "ignorant" and "half civilized;" and advances those who promote it to the grade of the "world's millionaires."

But "the planters have amongst them another element of barbarism and error. They are accustomed to gain their ends by the use of coercion." Here we have a reversal of the principle which governs free labor in Europe, and which illustrates slave labor in the South of the United States; and what does it establish? That the free labor of Europe gains its end by "combinations, regulations, strikes and unions;" and here it meets upon the same ground of "barbarism" of the planters of the South, who gain their ends by the same means. But mark the difference of the working of those two opposite systems—the one coerces the capitalist, the other coerces the laborer; and observe the results—the one equally "ignorant" and "barbarous" coerces "the world's millionaires," and the other "from coercing Sambo, falls naturally into the error that they can coerce the market."

But again, we are told by the Economist that "the use of one kind of coercion is incompatible with the other—the slaves cannot be coerced without being continually maintained. They are costly instruments of production, and *the commodities they raise must be sold to procure them clothing and subsistence.*"

Whatever may be the "incompatibility" of one "coercion" with another, here we have the full admission of the London Economist in favor of the slave system of the South, that "the commodities they raise must be sold to procure them clothing and subsistence." Can as much be said in favor of the free white labor of England? Can it be said of them, that when crops fail, when manufactures cease to flourish, when a panic seizes the money market, and capital becomes grasping, and monopoly unrelenting, that "the commodities they raise must be sold to procure them clothing and subsistence?" No! It is too true, to quote the writer of the Economist, "that the responsibility of the employer of free labor is at an end when he has paid the covenanted wages." Yes, there his responsibility ends, and leaves the white laborer to perish in his necessities, or urges him to rapine, or to murder, in his "ignorance" and his "barbarity."

But all these deleterious results deduced from the Economist's theories of labor, find one great compensating advantage over all others, in the fact "that there are more fortunes made by the employers of free labor than by slave owners." This may be true; but it is no great argument in favor of any system of labor over another, however much its superiority may be lauded by the use of specious terms to convey its important advantages, that it produces in the north of the United States the Astors, the Girards, and the Longworthys, the "millionaires of the States," and in Europe the Rothschilds, the Lloyds, the Barings, "the millionaires of the world." It may indeed, admitting its truth, concentrate enormous capital into a few hands; and the "free system," which depends upon such unequal results to the laborer and the employer, must be "coercive" in the extreme; and forced, as we know it frequently has been, both in the United States and in Europe, into "combinations, unions, strikes," &c., &c., to "gain its ends."

Notwithstanding that such a system produces such enormous capitalists, the explanation of the opinions being cherished by those who adopt it, and contribute to make its millionaires, that is, in forming themselves into "unions, and regulations, and combinations," is found in the fact that they, the "ignorant workman," the "States" and "Russia," are "all of them in much the same stage of civilization." Without pausing to acknowledge the compliment, among the many thus undeservedly paid to the South, we would ask the Economist to explain what relative condition it considers the working people to hold to the rest of the population of Europe in the scale of civilization? In their great proportion they must constitute a most important "element" of the whole system of European civilization and government; and it is no satisfactory answer to the question to say, that they occupy the relative condition of semi-barbarism to the rest of the inhabitants. Nor is the problem, with any more satisfaction, solved in the proposition upon which the writer claims the real physical facts of civilization to depend, viz.: "the proximity and rapid communication between men."

Admitting all the force of this proposition, yet we are at a loss to find its full explanation as far as it refers to the great body of the European people, in the statement that "amongst workmen there is comparatively, from want of time, intense occupation in daily labor, and *other causes*—little intellectual communication."

It would be difficult to find more controlling causes for bringing men together than those assigned by the Economist for keeping them apart. They labor in great cities and large towns; their "communication" may not be the most "intellectual," but it is rendered the more binding and sympathetic from the common necessities which it imposes. They may not have the intellectual faculty of inventing new systems of "free labor" over that which now exists; but they are urged by the natural laws of men, if not by the "physical facts" of civilization, to form themselves into "unions, combinations, regulations," &c. The truth is, there is more in those "other causes" than the writer cared to enter to explain the low grade of the workmen of Europe in the scale of civilization.

Pursuing this branch of the writer's subject, not for the purpose of exposing his fallacies, but for the sake of the argument, let us see how far his statement [illegible]stained by the facts, relative to the South not enjoying the advantages of that "proximity and rapid communication between men," so necessarily constituting the "real physical fact" upon which "civilization depends."

Now, it may be true, "that in the States and in Russia, the population is yet relatively small in comparison to the surface of the country occupied;" but in the South of the United States it is far from obstructing that "communication" which is "rapid" enough for all purposes of intelligent intercourse; whilst the proximity of its population is sufficiently close for all purposes of mutual protection, safety, and independence of the country occupied, and if necessary, for a little more. The rapid rail-roads and the lightning telegraphs which bring into "intellectual communication," as well as "constant intercourse," the inhabitants of the South, will serve as a sure protection against the evils apprehended by the Economist, arising from the distance between them; and enable them to avoid the danger of committing the "similar errors" fallen into by "all half-barbarous people;" including the "operatives who strike," and the "arbitrary rulers of Russia, who never communicate freely with any person."

We will conclude with a few observations upon the closing paragraph of the Economist's article:

"This Convention is a foolish attempt to turn trade from its course, which was beyond the power of Bonaparte, and it will not be compassed by the planters."

We have examined this theory of turning "trade from its course," in some general views already. The theme is too general and too interesting to trust ourselves to make a text of the Economist's closing sentence, upon which to base an analysis of its complex nature. It presents one thing, however, which can be explained without the elaboration of an argument; and that is, with respect to Napoleon's attempt to "turn the course of trade;" and the analogy which its failure to the "foolish attempt" for the same purpose, of the southern planters, is supposed to bear. The "course of trade," in the eyes of the Economist, is a course evidently which is never to be turned. Its progress is but the history of the "course of empire;" and whenever that progress has been made through conquest, through discovery, through enterprise, it has turned in every step that course. Let the Economist look at the empire of trade, which its own great commercial empire has turned; and then let it ask itself if this "course of trade" is one irrevocable law never to be changed by the changing wants and unceasing energies of man. The established laws of custom, indeed, are as formidable in the barriers to improvement, as physical obstacles are to commercial enterprise; but the energy, indomitable energy, and intellect, persevering and unceasing, combined in man, are equal to compete successfully with both. The British Empire in India dates to a comparatively short period back; the first charter of the East India Company having been granted by Elizabeth at the commencement of the seventeenth century. From that small beginning of the "United Company of Merchants of England trading with the East Indies," with its small capital of $400,000, and its shares of £50, has sprung gradually that vast empire, which governs 150,000,000 of men. And where was this "course of trade" before the "United Company of English Merchants" turned it from its channel? It was silently flowing into the coffers of the Hollanders, and before their conquests, into the treasury of the Portuguese; and before they "turned its course," augmenting the monopolized wealth of the world in the commerce of the Venetian Republic. In the boundless empire which Napoleon had marked out for his sway, his imagination naturally attracted him to the East. The results which were to flow from its conquest would be the subjugation of the British power in India, and the establishment of the French. Had he succeeded in his expedition, and overthrown that empire, its consequences to the world would have been no more to "turn the course of trade" from its *original or natural channel*, than were the monopolies of the Venetians, the conquests of the Portuguese, the successes of the Hollanders, and finally the establishment of the dominion of Great Britain herself.

Having thus made the article of the London Economist the ground for the examination of the many fallacies which exist abroad with respect to the institutions of the South; and making it the basis for the refutation of that popular error which prevails with respect to the "natural laws," and the "general laws," and the "customs," and the "usages" which govern commercial enterprises as opposed to all improvements, and persisted in, in the face of the commercial history of the world, we are constrained, for want of space, to bring our article to a close.

Art. III.—COTTON, AND ITS MANUFACTURES.

THE art of *Calico Printing*, though apparently one of the most difficult, has been practiced from a remote era. Herodotus mentions, "that a nation on the shores of the Caspian were in the habit of painting the figures of animals on their clothes, with a color formed from the leaves of trees bruised and soaked in water; and he adds, that this color is not effaceable." There is a passage in Pliny, which, though somewhat obscure, shows that the Egyptians were fully acquainted with the *principle* of calico printing.

A process, similar to the one practiced by the Egyptians, is known to have been followed in India from the earliest times. The chemical and mechanical inventions of modern ages have been the cause of vast improvements in this beautiful art; but in this instance, it appears, the moderns have been only perfecting and improving processes practiced in the remotest antiquity. It is believed that calico printing was not practiced in Europe till the seventeenth century, and did not commence in England till about 1675, where it is now a very important and valuable business. In the year 1690, an establishment was commenced on the banks of the Thames near London, but the goods there printed were confined to muslins and calicoes imported from India. With a view to fostering and encouraging this branch of industry, the British government passed an act in 1700, forbidding the sale or use of foreign printed goods; and to prevent the use of foreign calicoes interfering with the domestic production of linen and woollen stuffs, an act was passed, 1721, imposing a penalty of £5 upon the wearer, and £20 upon the seller, of a piece of calico. Fifteen years after, this statute was so modified, that calicoes manufactured in Great Britain were allowed to be worn, "*provided the warp thereof was entirely of linen yarn.*" In 1774, a statute was passed allowing printed goods made wholly of cotton to be used. And this branch of trade has also been further protected by several subsequent acts, as in 1782, prohibiting the exportation of any materials used in printing, &c., and in 1783, giving bounties on the export of British printed goods; and several other statutes were enacted on the same principle, until 1787, when an excise duty of 3*d.* which was afterwards raised to 3½*d.* was imposed on all printed cottons; but the same was allowed as a drawback on the goods when exported. This act was wholly repealed in the year 1831, mainly through the exertions of Mr. Thompson, afterwards Lord Sydenham.

The old method of printing calicoes was by using blocks of wood, on the surface of which the pattern was cut in relief, like the common method of wood engraving; thus the figure was impressed upon the cloth; only one color could be used at once; and if other colors were required to complete the pattern, it was necessary to repeat the operation with different blocks. This was a slow and expensive method, and required great manual dexterity.

The great improvement in the art was the invention of *cylinder printing*, which bears nearly the same relation, in point of dispatch, to block printing by hand, as throstle or mule spinning bears to the one-thread wheel.

This great invention is said to have been made by a Scotchman of the name of Bell, and was first successfully applied about the year 1785. By subsequent improvements, this method has attained great perfection. At the present time, a piece of cloth, containing thirty-five yards, *when everything is properly prepared*, can be printed by the *cylinder machine*, in the best manner, with six or eight different colors, in less than five minutes.

The period of the establishment of the cotton manufacture in England, was one of peculiar interest to that nation, and is well worth the serious study of the political economist. At its commencement, she had just lost her American Colonies—retiring from that contest reduced in her national means of aggression and defence to an amount exceeding *one hundred thousand men*, and *one hundred millions of money*. The French Revolution, and the frightful struggles which followed that event, brought her into collision with the other European powers, which resulted in the continental system of the Emperor of the French, having for its principal object the humbling of England by the exclusion of her manufactures from the continent. Yet the quiet but ceaseless activity of her spindles and her looms, enabled her to turn these seemingly disastrous events into sources of individual profit and national strength. Her lost colonies became her best commercial customers; and the paralysis upon the manufacturing interests of the continent produced by that very system, gave to her the lion's share in the commerce of the world. The superiority of her marine, and her insular position, enabled her to protect her commerce and manufactures, of which the larger, though the newer branch, was the *cotton manufacture*; while the profits of the latter enabled her not only to sustain the former, but also to subsidize her allies, and in the end to conquer her enemies. *The genius of Napoleon was not a match for that of* HARGREAVES, ARKWRIGHT, CROMPTON AND CARTWRIGHT.*

Her manufacturing enterprise would, however, soon have found its limit, had it not been for the perfecting of the steam-engine by WATT, who, in 1785, first applied this motive power to cotton factories.

The following table frcm De Bow, will show the early progress of the cotton manufacture in Great Britain, prior to the invention of the spinning-jenny by Hargreaves:

Years.	Raw Cotton Imported.	Years.	Raw Cotton Imported.
1697	1,979,359 lbs.	1730	1,545,472 lbs.
1701	1,985,868 "	1741	1.645,031 "
1710	715,008 "	1751	2,976,610 "
1720	1,972,805 "	1764	3,870,392 "

The spinning-jenny of Hargreaves went into operation in 1767; and Arkwright's improvement was patented and put in operation in 1769. The influence of these, and other inventions and improvements made afterwards, on the manufacture and trade, may be seen by inspecting the following table:

Years.	Cotton Imported.	Years.	Cotton Imported.
1781	5,198 778 lbs.	1810	132,488 935 lbs.
1785	18.400,384 "	1811	91,576.535 "
1790	31,447,605 "	1812	63 025 936 "
1795	26.40,1340 "	1813	50,966.000 "
1800	56.010,732 "	1814	60,060,239 "
1805	56,682,406 "	1815	99,306,343 "

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* Of cotton goods alone, the exports of England, between 1793 and 1815, amounted to two hundred and fifty million pounds sterling.

The importation of cotton into England, from all sources, since 1816, have been as follows, according to the statement of Messrs. George Holt and Co., cotton brokers at Liverpool:

Years.	Cotton Imported.	Years.	Cotton Imported.
1816	93,000,000 lbs.	1838	501,000,000 lbs.
1820	143,000,000 "	1839	388,000,000 "
1825	222,000.000 "	1840	583,000,000 "
1830	261,000 000 "	1845	721,979.953 "
1835	361,000.000 "	1850–51	800,000,000 "
1837	408,000,000 "		

In 1830, the exports of cotton goods were about £12,000,000. In 1840, £24,668,618, and in 1850, the total declared value was £28,252,878.

A leading English paper, in speaking of the "Great Exhibition of the Industry of all Nations," says of the department devoted to cotton goods: Though it might not have appeared so attractive to the common observer, *yet to the statesman and political economist, it was pre-eminently interesting.* The total number of cotton factories in Great Britain is 1,932; containing 20,977,017 spindles, and 249,627 power looms. The amount of capital employed is probably over two hundred and fifty millions of dollars, and the annual product of goods is about the same sum. The motive power in these factories is supplied by steam, representing 71,005 horse power; and water, representing 11,550 horse power. The total number of persons in Great Britain dependent upon this branch of industry for their daily subsistence cannot be much less than one million five hundred thousand, some writers say, more than two millions. Soon after the invention of cotton machinery, it was introduced among the various nations of the continent of Europe.

In France, the greatest manufacturing power of continental Europe, the earliest manufactures of cotton goods date from the latter years of the 17th century.* As early as 1688, we find the importations at the port of Marseilles from the Levant, included 1,450,000 lbs. of spun yarn, and 450,000 lbs. raw cotton. In 1750, they had increased to 3,831,620 lbs. of the raw material, and 3,381,625 lbs. of yarn.

Spinning frames, from the English designs, were made at Amiens in 1765; and in 1784 Mr. Martin, of that town, obtained permission to establish a cotton factory. Cotton manufactures in France did not, however, obtain to any important extent till the beginning of the present century. In 1806, a commission of inquiry reported that "the art of spinning cotton was completely established in France." At the present time her factories are consuming annually about 150,000,000 lbs. of cotton, and are running about 4,000,000 of spindles.

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* For the following facts touching the cotton manufactures on the continent of Europe, we are principally indebted to translations from the Dictionnaire Geographique et Statisque of Adrien Guibert, published at Paris in 1850, and Wilhelm Hoffman's Allgemeine Encyclopedia, published at Leipzig in 1848, kindly furnished by an accomplished linguist of this city. We have not been able to find later or more reliable statistics.

The French cotton goods stand pre-eminent for taste. The best of these are made at Mulhausen, on the Rhine, where the first printed goods were produced, about the close of the 18th century, by Koechlin & Co., celebrated dyers and printers. At that time these goods were considered by the French India Trading Company as an interference with their privileges, and they succeeded in prohibiting the use of them in France. This continued till the French Revolution took place; since when the Mulhausen calicoes have attained a world-wide reputation.

The application of chemistry to the arts of bleaching and coloring, have produced the most important changes for the French manufacturers. The great discoveries in this science by her distinguished sons have enabled her manufacturers to outstrip all their competitors in dying and printing.

The celebrated Turkey-red color was first applied to *cloth* in 1810, by the Messrs. Koechlins, before named. Those gentlemen have also the honor of discovering, in 1811, the art of *printing* upon Turkey-red, which is done by printing upon that color with some powerful acid; and then immersing it in a solution of chloride of lime. Neither of these agents alone affects the color; but those parts which have received the acid, on being plunged into chloride of lime, are speedily deprived of their dye, and made white by the acid of the liberated chlorine. *This is said to be one of the most beautiful facts in the chemistry of calico printing.*

In addition to their superiority of colors, the French are quite as celebrated for the combinations of them, and for the great beauty of their designs. These are so generally recognized, that English and American manufacturers are now in the practice of importing and applying them to *their* work. To show the *great* importance attached to these particular branches of manufacturing, it will suffice to state that the French government has established a *public school* for the teaching of the art of designing as applied to cotton and woollen goods, to which every child, however humble, has access, if showing the proper talent.

In Austria the cotton manufacture gives employment the whole year round to hundreds of thousands of individuals; but no other branch is subject to such fluctuations, and these are occasioned, in the first place, by the necessity for drawing the supply of the raw material from abroad. The rapid development of the cotton manufacture is shown in the clearest manner by the quantities imported at given periods. On an average of the five years, 1843 to 1847 inclusive, they had increased to 403,100 cwt. In the year 1846, they had reached 447,300 cwt. The increase of this manufacture has been sevenfold in the last 18 years. In the year 1847, the Austrian monarchy contained 206 spinning mills, with 6,125 spinning machines, and 1,421,986 spindles.

The total production in the year 1849, of cotton yarn and twist, was 397,240 cwt. The number of work-people employed directly and indirectly in the spinning mills is about 50,000. In addition to their own production of cotton yarn they import considerable from abroad, mainly from England. Most of their weaving is done by hand looms. The number of hands employed in *cotton weaving* is not less than 300,000.

Switzerland ranks next to England, in comparison with the number of her population, in the production of woven and spun cotton; it is likewise one of the countries that consumes the most. She has in operation more than 950,000 spindles, and manufactures all the numbers up to 250 (English.) The Swiss possess about 250 dying establishments for thread and woven stuffs. The Turkey-red dying establishments are of great renown. The manufacture of printed cottons commenced in this country about the middle of the 18th century. Her first spinning establishment by machinery was erected about the beginning of the present century. During their early stages her manufacturers had every thing to contend against in the shape of French prohibition and *English competition;* but her energy and industry have overcome every obstacle, and they are now firmly established.

Belgium, in 1844, was running about 420,000 spindles.

Cotton spinning was introduced into Saxony in the 16th century. The first articles made were cotton scarfs or veils, of about two yards' length, and were purchased by Greek merchants to be sold to the Turks for turbans. In 1650, an article called "cotton crape" was the first result of the improvements made in weaving. At that time the weaving was done by men and women at their own houses. In 1774, owing to the importations of English yarns underselling the domestic spinner, corporations were formed and attempts made to introduce English machinery. In 1800, the first spinning machine was built, by an Englishman named Whitfield. In 1813, all Saxony had but 85 spinning frames, and in 1845, she had 500,000 spindles, employing 12,000 hands.

Prussia, Baden, Wirtemburg, and other small German principalities, were using in 1846 about 100,000 bales of cotton, and running 1,000,000 spindles. Their imports of yarns from England are decreasing annually, and their exports of the same article are increasing.

Russia, in 1841, imported about 30,000 bales of cotton, of which about 2,500 were from the United States, 17,500 from England, and the remaining 10,000 bales from India, Persia, &c. During that year she made 32 million pounds of yarn. The cotton from India imported by Russia, is mostly spun by hand, being a very short staple. In addition to the above importation of cotton, she received from other countries 24 million pounds of yarn, nine-tenths of it from England. The portion brought from Central Asia is of inferior quality, and used only for coarse cloths. Russia at that time had 700,000 spindles, and is annually increasing her cotton manufacture.

EGYPT.—As soon as Mehemet Ali obtained sway in Egypt, his powerful mind sought for means to render him independent of foreign powers. He introduced workmen from abroad, and erected immediately the first cotton factory at Cairo on the Nile. At Malta (a place deriving its name from the Maltese operatives employed there), he also built a large factory to operate 200 looms. He experimented with different varieties of cotton, in order to ascertain the kind best adapted to the climate and soil of Egypt.

In connection with these experiments, M. Jumel, formerly a French merchant in the city of New-York, introduced cotton seed and gins from the United States, about 1820 and 1821, and succeeded fully in establishing them. In 1828, the Sea Island was planted, and produced an article of good quality, which is still cultivated, and known in commerce as "Egyptian Sea Island."

Turkey, under her present Sultan, is making commendable progress in various manufactures, and among them the manufacture of cotton is by no means neglected. At the World's Fair in London, there were exhibited no less than twenty-five varieties of cotton, the product of Turkey, and upwards of one hundred and fifty articles of cotton manufacture, including those combined with gold, silk and woollen, many of which were of great beauty and gorgeousness. Among the more common and useful articles were specimens of cotton duck for sails. But it is impossible at present, to get correct statistics of the manufactures of this empire.

This important manufacture is now on the increase in the other European States; but we have not been able to obtain sufficiently correct statistics to enable us to state the amount or the degree of perfection to which they have arrived.* The yarns of England are still exported to the continent, to the amount of many millions annually, which are there woven into cloth, principally by hand looms.

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* Messrs. Du Fay & Co. of Manchester, have published the following interesting table, giving a comparative estimate of the quantities of raw cotton consumed in

CHINA AND THE EAST INDIES.—It is impossible to procure very reliable data or estimates of the production and consumption of these over-populated portions of the globe, but enough is known to render it certain that they are vastly greater than of all the balance of the world. Mr. John Chapman, founder and late manager of the Great Indian Peninsular Railway Company, in his work on the Cotton and Commerce of India, remarks that the estimates by various writers of the consumption of cotton in India, range from one thousand millions to three thousand millions of pounds. The average of these amounts is nearly double the greatest crop of cotton ever raised in the United States. CHINA produces annually more than 500,000 bales of the yellow or Nankin cotton, besides which she imports largely from India.

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Art. IV.—THE GREAT LAKES—THEIR CITIES AND TRADE.

LAKE SUPERIOR, ITS GEOLOGICAL FEATURES, ITS ISLANDS, RIVERS, FISH, TOWNS, COPPER MINES AND MINING COMPANIES—IRON—ST. MARY'S CANAL—LAKE MICHIGAN, CHICAGO, MILWAUKIE—LAKE HURON, DETROIT—LAKE ERIE, SANDUSKY, CLEVELAND, BUFFALO—LAKE ONTARIO, &c., &c.

THE great lakes of North America, lying between the United States and the British possessions, form the most remarkable chain of fresh water lakes on the globe, whether we consider them as to their geographical position, extent, or commercial importance. Lying in the very heart of North America, they drain, and serve the commercial purposes of a larger portion of the civilized world, than any collection of inland water known. Each of them is a vast sea of itself, which, if unconnected even with the others, would in time become the busy scene of immense commerce, unlike any thing ever known around the waters of any inland sea of the old world. A single one of them even now presents a greater commerce than the whole Mediterranean. Some one has very aptly observed, that the trade of our great lakes—we mean the United States' trade—is the right term of American commerce. This is true; and it must be re-

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the principal manufacturing countries, in millions of weight, from 1836 to 1851. (The figures for the United States are much too low.)

	1836.	1840.	1845.	1849.	1851.
Great Britain (millions of lbs.),	350	473	597	627	648
Russia, Germany, Holland, and Belgium,	57	72	96	160	118
France (including adjacent countries),	118	157	158	186	149
Spain,	—	—	—	—	34
Mediterranean,	—	—	—	—	12
Countries bordering on the Adriatic,	28	28	38	47	45
United States of North America,	86	111	158	205	158
Sundries,	—	—	—	—	11
Total (millions of lbs.),	639	841	1047	1225	1175

membered, that it has become such within the last thirty years. The trade of the great lakes has sprung up, like magical creations, at the single bidding of American industry and enterprise; and that, too, with little or no aid from the general government.* It is the spontaneous growth of American liberty and American institutions. In 1819 there was but one steamboat on the lakes. In 1841 the trade of the lakes had amounted to $65,826,022, or more than four times the entire export and import trade of the 13 American Colonies in 1775. From 1836 to 1841 the increase of the trade of the lakes was $50,000,000!

We propose, in the present paper, to unfold the present extent, condition, and prospects of the trade of the great lakes, taking each of them up separately, commencing with

LAKE SUPERIOR.—We shall trace down the swelling flood of commerce, eastward, to those points where it takes its final departure, by railroad and canal, for the tide waters of the Atlantic.

Lake Superior is the largest body of fresh water in the known world. It is about 360 miles long and 160 wide, measured in its widest part from Grand Island to Neepigon Bay. Its circumference is from 1,200 to 1,500 miles. Its mean depth is about 900 feet; its elevation above lakes Huron and Michigan 49 feet; and above the sea, 627. It covers an area of 32,000 square miles, according to some estimates; others make it more—about 50,000 square miles. It is about the size of the State of Pennsylvania.†

This vast inland sea is remarkable for the clearness and transparency of its waters; and it abounds with the most delicious fresh water fish known. The flavor of its trout, white fish, and others, exceeds infinitely that of the fish of the other lakes. Its sturgeon are quite remarkable; and all its fish command in market a higher price than others. "One species," says Mr. Andrews,‡ "the *siskawit*,§ has only to be known

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* Of $17,199,233 appropriated by the general government for the benefit of rivers and harbors, only $2,790,999 were devoted to the lakes.—*Andrews' Report*, p. 53.

† For convenience of reference, and to save the trouble of stating the dimensions of the other lakes, we add here the following table, giving a comparative view of all the great lakes. We take it from Mr. Andrews' Report on the Lake Trade. His figures vary a little from ours in respect to Lake Superior. Dr. Charles T. Jackson, late United States Geologist, says: "Its greatest length is 400 miles." It will be seen by the above table, that the BOTTOM of Lake Superior is 273 feet *below* the surface of the ocean. Dr. Jackson says 300 feet:—

Names.	Greatest Length. Miles.	Greatest Breadth. Miles.	Mean Depth. Feet.	Elevation. Feet.	Area. Sq. Miles.
Superior	355	160	900	627	32,000
Michigan	320	100	900	578	22,000
Huron	260	160	900	574	20,400
Erie	240	80	84	565	9,600
Ontario	180	35	500	232	6,300
Total	1,555	—	—	—	90,000

‡ *Pereopsis guttatus.*

§ Report on Colonial and Lake Trade, 1852.

in the New-York and eastern markets, in order to supersede all varieties of sea-fish; for, unquestionably, none approach it in succulence and flavor." The trout generally weighs 12 lbs., but in some instances exceed 50 lbs.

The lake is subject to as violent storms as the Atlantic, rendering the navigation at times exceedingly dangerous.* The coast is generally elevated, rocky, and mountainous, but exceedingly picturesque and grand. In many parts, along the southern shore, the country is decidedly mountainous, the ridges rising, in many places, 800 feet above the lake. The land on the borders of the lake is generally sterile. From the elaborate report of Mr. D. D. Owen, United States Geologist, it appears that geological sections, along the southern shore of the lake, present four formations or great classes of rocks. 1st, *Sedimentary*, embracing red sand-stone, black slate, and conglomerate; 2d, *Trappous* rocks, or those of volcanic origin, embracing black and red amygdaloid and greenstone trap; with augitic, hornblendic, and feldspathic rocks, embracing syenite and granites of the same age; 3d, *Metamorphosed* rocks, of hornblendic slates, iron slates, black slates, in large, thin, rectangular sheets; talcose slates, with quartz, and slaty quartz; 4th, *Granitic* rocks, of syenite and granite, occupying the country south of the mountain range.

Since these four systems of rocky beds and masses underwent their last disturbance, the superficial materials have been deposited, reaching from the lake level up to the highest summits, 1,282 feet above the lake. These deposits consist of red clay, boulder drift, coarse sand, and gravel. They are supposed to be, in origin, contemporaneous. This red marly clay, so called, is rather a fine-grained homogeneous marly sand, cemented by clay, and exhibiting well-defined horizontal lines of lamination. It constitutes the shore, or lake bluffs, in many places, especially towards the southwest. It is constantly being washed away by the waves of the lake, into which it falls in immense slides and avalanches, and is cut into deep narrow gullies by the rains. It slopes gradually back from the lake to the mountains, and appears like the bed of an ancient sea. It rises, in some places, to the height of 500 feet. The bold and curiously wrought face of the clay bluffs on the coast form scenes that attract the attention of the traveller, and are worthy of the notice of the scientific painter.*

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* "Lake Superior has at times not only the varied interest, but the sublimity of a true ocean. Its blue, cold, transparent waters, undisturbed by tides, lie, during a calm, motionless and glossy as those of any small secluded lake, reflecting with perfect truth of form and color the inverted landscape that slopes down to its smooth, sandy beach. But when this inland sea is stirred by the rising tempest, the long sweep of its waves, and the curling white caps that crest its surface, give warning not only to the light bark canoe, but also to sloop, and schooner, and lake steamer, to seek some sheltered haven."—*Owens' Geological Survey*, p. 34.

Terraces above the red clay, in many parts, are very well defined, formed of boulder drift. The material of the drift is almost entirely washed boulders of the trappoic, quartzoic, granitic, and metamorphic rocks of Lake Superior, very large, and with little gravel and earth between them. These terraces are so well marked as to be easily counted at the distance of ten miles in clear weather. The impression is very strong on the mind of the beholder that they are ancient beaches or shores†—that what is now Lake Superior, is only what has been left of the ocean which may have once extended thus far into the continent.

The northwest shores of the lake present high ranges and chains of hills, which begin in Canada and cross into Minnesota. They rise from 1,200 to 1,300 feet above the lake. The valleys between the mountain ridges are from 500 to 600 feet below the summits, and vary in width from one to two miles, to narrow gorges not over 200 or 300 yards across. The scenery of the whole extent of the ranges north of the lake is bold and picturesque. The outline of the chains of ridges is very irregular. Some of the hills are round-backed, others angular, and others jagged, with an occasional peak here and there, but no spires. In the trap region rugged mountain scenery prevails.

The rivers have numerous falls and cascades, and in the small deep valleys often expand into beautiful lakes. There is great confusion in the geological formations on the north shore. The great amount of denudation or erosion on the north shore, also adds much to the complexity of its geology. The stratified rocks, however, are well defined in some localities. The tops of the high ridges are sometimes quite bare, but generally they are covered with mosses and lichens, and a stunted growth of evergreens. The rocks are sometimes found for several acres in extent, perfectly naked, smooth and polished.

Almost the whole line of the shore is rock-bound, the rocks rising from the water in escarpments, many of them mural, from 10 to 200 feet in height, and presenting an almost unequalled section of igneous and altered rocks. At no points are sloping wooded plains to be seen, as on the south shore.

The shore is indented by numerous small bays and pockets, but none of them very deep. At the bottom of these bays the beach is low, and covered with boulders. The beaches can only be approached by canoes or the smallest craft. Some of the bays, however, afford shelter from storms, and they are often bounded by high mural walls of rock, rising 600 feet above the water. These bays owe their existence, shape, and extent, to the numerous trap dykes, with various bearings, which traverse all this region.*

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* Owens' Geological Survey of Wisconsin, Iowa, and Minnesota, pp. 425–7.

† Colonel Whittlesey's Report, in Owen.

The entire shores of the lake have not yet undergone a thorough geological survey, that of Dr. Owen embracing only a portion of the south shore, the southwestern part, and a portion of the north shore. The eastern part of the lake presents many very interesting geological features. The pictured rocks on the shore toward the east end are a great curiosity. They form a perpendicular wall 300 feet high, extending about 12 miles, They present numerous projections and indentations, with vast caverns, which receive the waves with a tremendous roar. At one place a considerable stream is thrown from them into the lake, by a grand cascade 70 feet high, and is projected so far, that boats pass dry between it and the rocky shore. The Doric rock or arch appears like a work of art, consisting of an isolated mass of sandstone, with four pillars, supporting a stratum or entablature of stone covered with soil, and giving support to a handsome growth of spruce and fir trees, some of which are 50 or 60 feet high.

The entire geology of the region of Lake Superior sufficiently indicates the forbidding character of that portion of the world. With the exception, perhaps, of some limited sections on the south and southwest shore, the entire borders of the lake are miserably sterile and uninviting. Their mineral wealth is all that renders them valuable. For a minute description of the geology of Lake Superior, we must refer our readers to the great work of Mr. David Dale Owen, United States geologist, published by the government.

Lake Superior receives the waters of some eighty small rivers, none of which are navigable, except by canoes, owing to their numerous falls and rapids. The chief of these rivers on the American side are the Montreal, Black, Presque Isle, Ontonagon, Eagle, Little Montreal, Sturgeon, Huron, Dead, Carp, Chocolate, La Prairie, Two-hearted, Tequamenen, and St. Louis. The Ontonagon and Sturgeon are the largest and most important rivers, which, by the removal of some obstructions at their mouths, and the construction of piers to prevent the formation of bars, might be converted into excellent and spacious harbors, in the immediate vicinity of some of the most valuable mines, where the want of safe anchorage is now severely felt.

Lake Superior contains several large islands, of which the largest is Isle Royale, in the western part, opposite the commencement of the grand portage. The 48th parallel of North latitude runs exactly through the middle of it, and nearly through the middle of the lake itself. The best harbors of the lake are those of this island, but they are rarely visited. They are small and beautiful, and scattered along its whole extent on both sides of the island. At its easterly extremity the long spits of rocks which project like fingers far into the lake, afford abundant shelter for boats or small vessels; while at the western end of the island, there is a large and well sheltered bay called Washington harbor. Near Kiskanit bay are shelving strata of red sandstone, running for many miles out into the lake, with only a few feet of water covering them, thus rendering the entries to the bay dangerous. On the south side of the island is Rock Harbor, a bay large and perfectly safe for any vessel. Its shores are very bold, while its anchorage is good; and the numerous little islands, which stand like so many castles at its entrance, protect it from the heavy surges of the lake. The whole aspect of this bay is not unlike that of the bay of Naples, though there is no modern volcano in the back-ground to complete the scene. The distance of the island from the main land is about twenty miles.*

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* Owens' Geological Survey, &c., pp. 341–418.

Between Isle Royale and the main land are two considerable islands, of which, however, little is known, and in the extreme north part of the lake are four more. In the southwest corner of the lake lie the Apostle's Isles, a cluster of considerable importance. When the waters of the lake assumed their present level, these islands were, doubtless, a part of the promontory now existing between Chegwomingo bay and the the Brule river. They are composed of drift hills and red clay, resting on sandstone, which occasionally appears at the surface. In the lapse of ages the winds and waves broke up the extremity of the promontory, leaving the fragments in the shape of these islands. Madeline is the largest of the group, being thirteen miles long, and with an average breadth of three miles. Bear Island and Eshquagendeg are the next two largest, and are each about four miles long, by two and a-half wide. The whole cluster embraces an area of about 400 square miles, of which one-half is water. The soil of the islands is in some places good, but the major part of it would be difficult to cultivate. Thickets of evergreens line the shores, while the rest of the surface of the islands is covered with cedar, birch, aspen, hemlock, and pine, with occasionally patches of sugar-tree land and natural meadows. The shores are bold, wild, and dangerous, the rock being often worn into grottoes, detached pillars, blocks, caverns, arches and niches, through which the waves resound. The waters around the island teem with the finest fish.

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* Dr. Chs. T. Jackson's Geology, Mineralogy, and Topography of Lake Superior.

Where the soil of the islands can be tilled, it yields potatoes and other garden vegetables. In the low grounds the grass is fine; oats do well, and wheat, it is thought, would thrive. Currants and raspberries are the only fruits seen there. The health of the islands is not surpassed. A proposition either has been, or will be submitted to the government at Washington, for colonizing these islands with those Indians who ceded their territory to the United States, in 1842, and who are soon to be removed.

The other islands of Lake Superior are Grand Island on the Michigan shore, another near the outlet, of the same size, two others north of the outlet, and lastly, the isle of Michipicoten, which is next in size to Isle Royale, though only one-third its size. Little is known of it, but it is believed, like Isle Royale, to abound in copper.*

The lands immediately adjoining Lake Superior are, for the most part sterile, barren, and rugged beyond description, consisting for the most part, on the southern shore, of detrital, and on the northern, of igneous rocks, covered with a sparse and stunted growth of pines and other evergreens, mixed with the feeble northern vegetation of birch, aspen, and other deciduous trees of those regions. Little of the shores are susceptible of cultivation, and it is not likely that the soil will be able to sustain a very dense population. The more southern regions will have to furnish them food.† The country may be said to be, for a considerable distance around the lake, almost entirely destitute of agricultural resources; but this deficiency is replaced by its vast mineral wealth, which will ensure it a dense population. Its numerous rivers, too, although not navigable, possess perhaps a more important quality—they afford an unlimited amount of water-power for manufactories. This superabundance of water-power, on the shores of the largest lake in the world, is the most extensive of any known, and is destined to render it one of the greatest manufacturing regions in America.

The vast mineral wealth of the shores of Lake Superior probably greatly exceeds all popular opinion on the subject. From the east to the west the whole southern shore abounds with copper—not as it is generally found, in ore yielding a few per cent., but in vast veins of almost virgin metal, the extent of which is yet unexplored, as it is probably unexpected and incalculable. When this region was first discovered by the Jesuits, early in the 17th century, these mines were worked by the Indians, and had probably been known to them for ages. They concealed them from the whites with a superstitious mystery; and when iron was at last introduced among them, the mines fell into oblivion, and it is only very recently that they have been re-discovered. Many more are doubtless yet to be discovered, as the whole region is evidently one vast bed of mineral treasure. The isles Royale and Michipicotan are also, beyond question, full of copper, as are also portions of the British coast, where two or three mines have already been opened.*

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* In a late number of the *Daily Wisconsin* newspaper, we find the following:—Hon. Jonas C. Heartt, ex-mayor of Troy, New-York, recently passed through this city on his way to the South and East from Lake Superior. He expressed himself much pleased with the localities which he visited, and corroborated all that has been published with reference to the vast mineral wealth of that region. He visited Michipicoten island, which has been touched but once before by a steamer, and that one was obliged to take shelter there in a gale of wind. There is a silver mine on the side of the island towards the Canada shore. He also saw at the "Cliff" copper mines a single mass of copper ore weighing *three hundred tons*. It would cost $8,000 to cut this up in a shape for transportation. The value of this mass, at 28 cents per lb., would be $188,160. There was also in another locality a mass weighing *one hundred and fifty tons*.

†Andrews' Report, p. 231.

As it is desirable to give our readers as full an account as possible of the vast mineral wealth of Lake Superior, we shall lay before them the statements of Dr. Charles T. Jackson, late U. S. Geologist and Chemist, as given in his report to the government, on the geology, mineralogy, and topography of the lands around Lake Superior, a report which must be received as high authority.

At Eagle river is "a vein of native copper, mixed with silver, which is one of the wonders of the world, there being solid masses of pure copper in it of more than 100 tons weight each, besides masses of smaller size in other parts of the vein." † This mine has produced about 900 tons of copper per annum. It is a regular metallic vein in amygdaloid trap rock. The vein is exposed in the face of a cliff, 300 feet above the level of the southwest branch of the Eagle river. The miners are now working this mine 300 feet below the surface. Immense blocks of copper are now taken out, and large lumps of copper called barrel ore, and rock rich in smaller pieces of copper, mixed with silver, are now raised, this last being called stamp ore, and worked by stamping and washing the ore. From this stamp work about $5,000 worth of pure silver is picked out by hand, and much is still left among the finer particles of metal, and goes into the melted copper. Suitable expelling will ultimately be erected for the separation of all the silver from this rich, argentiferous stamp work, lead being the appropriate metal for its extraction by eliquation and expellation.‡

There are other valuable copper mines on Eagle river. The North American Company, which has one end of the cliff vein, called the South Cliff mine, and another on which their mining operations commenced some years ago, is at present in successful operation, and will add much to the exports of copper from the lake.

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* Andrew's Report. † Dr. Jackson's Report. ‡ Ibid.

The Lake Superior Copper Company, the first that commenced mining in the copper region, in 1844, after laboring unsuccessfully for about two or three years, unfortunately sold out their mines just at the moment when they were upon the vein that has now been proved to be so very rich in copper and silver. The Phœnix Company, who bought the mine, have thus far been amply rewarded. To the eastward of this mine is another, which promises immense returns. The Copper Falls mine is also very rich in both copper and silver. The Northwest Company has a valuable mine a few miles from Eagle Harbor, and the metal raised therefrom is very rich and abundant. There are also several other mines at Eagle Harbor.

Native copper is also observed on Isle Royale. The most important mines are on the north side of the island. On Phelps' Island also is found native copper. On the Ontonagon river are important mines.

The rocks known to belong to the auriferous formation of Lake Superior, says Dr. Jackson, are all of igneous formation, or have been thrown up from the unknown interior of the globe in a molten state, and in long rents, having a somewhat crescentic shape, with the curve towards the north and west. The average width of this belt is not more than 5 miles, while its length is not less than 200.

It is remarkable that the copper on the northern shore of the lake is generally associated with sulphur, as yellow copper pyrites, or as grey or black sulphurets of copper; while the copper on the south shore, and on Isle Royale, is mostly in the metallic state and associated with silver, also in the metallic state, and that, too, without any alloy of one with the other. This singular condition of the two metals has greatly puzzled the chemists and mineralogists, and the solution of the problem is still undiscovered.*

Besides copper, there are mines of iron on the shores of the lake, which afford immense quantities of ore, and add greatly to the wealth of the region.†

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* Jackson's Report.

† There were in 1850 no less than 23 Lake Superior mining companies, all in operation, employing a capital of $618,760,—789 men, and digging 1,525 tons of native copper annually, worth $386,960. There were also two iron mining companies, with a capital of $29,000, and furnishing a product worth $37,000. Our latest information from the mines of Lake Superior is down to February, 1853, at which time all of them were in a most flourishing condition. The great Cliff mine continues to yield masses of nearly pure copper, of from one to eighty tons each. The net profit of the mine is $18,000 per month. In the Hill mine are two masses of pure copper at present, each exposed more than 20 feet in depth, and from 6 to 30 inches thick. The length of these masses is unknown. It would occupy too much space to particularize the enormous masses of virgin copper to be seen in

Nor must we pass over, in enumerating the resources of Lake Superior, its valuable fisheries. The fish trade of the lake is already considerable, and when the connection with the other lakes is completed, it will be, undoubtedly, very extensive.

The business of Lake Superior for 1851, estimated from the articles which crossed the portage at the Sault St. Marie, was as follows:

Imports—100,000 barrels bulk; in which are included 2,000 bundles of pressed hay, 20,000 bushels of oats and other kinds of grain, provisions, dry-goods, groceries, general supplies, and five mining engines—forming an aggregate estimated value of $1,000,000.

The *exports* passing down from the lake, around the rapids, for the same season, were as follows:

1,800 tons of copper, at $350	$630 000
500 " iron, at $50	25,000
4,000 bbls. of fish, at $5	20,000
	$675,000

The imports of 1851 exceed those of 1850 by 40,000 bbls.*

If the obstructions at the Sault St. Marie were removed, the Lake Superior trade would increase one hundred fold in five years. After some twenty years' debate on the subject of a ship canal around the falls, the government have at last commenced the work. The digging of such a canal is now actually going on, and its completion will form a new era in the history of Lake Superior. It is calculated that the tolls of the canal will pay the entire cost of construction in six years. The distance to be overcome does not exceed one mile, with an ascent perpendicular of 22 feet. The falls called the Sault St. Marie, on the St. Mary's river, the outlet of the lake, are about 120 miles from Mackinaw, 405 from Detroit, and 921 from Washington city. The rapids are about three-fourths of a mile long, and are about 20 miles below Lake Superior, with a fall of about 21 feet. The river St. Mary's is in all, from Lake Superior to Huron, about 60 miles in length, flowing first a few degrees north of east, then bending abruptly, and flowing a few degrees east of south. The banks of the river nowhere rise more than 20 feet above the water line, and are composed of soft, friable rock, imbedded in easy soil. It is truly astonishing that our government should have suffered so trivial a piece of internal improvement, but one of such immense importance, to remain so long untouched. The work, however, is now begun. The cost is estimated at only a

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most of the mines. Some eight or ten other mines have recently been opened on Lake Superior, mostly by New-York capital. They are all very promising.

* Andrews' Report on Lake Trade, 1852.

few hundred thousand dollars. When the work is finished, the largest and richest lake in the world will be thrown open to trade. The effect of the removal of this untoward obstacle, which deters a large, useful and healthy population from settling in that region, which keeps the mineral lands of the United States out of the market, and in a very great measure debars the influx of minerals which could not be otherwise shut out,—would be to give a general stimulus to trade, and an infusion of vigor, activity and spirit to the whole movement of the country, with a general increase to the national wealth, entirely beyond the reach of calculation.*

As yet there are but few settlements or towns on the lake. At the mouth of the Ontonagon is a town of some growing business. La Pointe, at the Apostles' Islands, is a pretty village, with a good harbour. It is situated on a magnificent bay, nearly three miles wide, which is capable of containing at anchor, secure from all winds, a numerous fleet of the largest class of vessels. La Pointe is destined to become a large place. It was originally selected by the adventurous traders of the Northwest Fur Company, as the most eligible site for a depôt and trading post in the Northwest Territory, and was for a long time their principal rendezvous, and the centre of their extensive and widespread operations. It is not only one of the most commanding and accessible situations on Lake Superior, but it presents one of the most agreeable and picturesque lake scenes that can well be imagined. The eye of the tourist will rest upon it with delight, and feast his eyes long upon its exquisite beauty. We dwell upon this place, because it is likely to become, as soon as the St. Mary's Canal is opened, a place where speculation in town lots will run high, if indeed it has not already begun.

As a site for a town, and especially as a place of resort for health and pleasure, La Pointe offers advantages beyond any portion of the main land in Wisconsin. Its surface is sufficiently level and extensive for all purposes of agriculture; its soil, a retentive red marl, is capable, under a proper system of tillage, of returning to the husbandman a hundred fold, and of producing fruits and vegetables in perfection. Its gently sloping, sandy beach, insures a secure footing to the bather. As a fishing station it is unrivalled.† Mr. Owen, in his great work, gives a fine view of La Pointe, as seen from a promontory on Madeline Island.

Fond-du-Lac, on the St. Louis river, is also destined to become a considerable place. It is 18 miles from the mouth of the river, which is wide and navigable thus far for the craft which ply on Lake Superior. It is well situated on a rich alluvial bottom, having a site sufficient for a large city. From Fond-du-Lac across to the Mississippi it is only 35 miles. A canal or railroad will before long connect the two. The navigability of the St. Louis river is not a question. In 1850, the propeller Manhattan, Captain Caldwell, entered the river without difficulty, and proceeded as far up as Fond-du-Lac. The river at the time was not above its ordinary stage, and at the lowest part sounded there was over six feet in the channel.*

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* Andrews' Report.

† Owens' Geological Survey, pp. 33, 34.

Eagle and Copper Harbors are also places of commerce, for the importation of supplies and the shipment of mineral produce. Ance, at the head of Keweenaw Bay, Marquette, Isle Royale, where there is a good harbor, are all places rapidly growing into importance. It would seem that the whole lake coast, from the outlet round to Isle Royale, is one continued chain of iron and copper mines, the immense wealth of which, when fully developed, can scarcely be conceived.†

There are at present on the lake two steamers, four propellers, and a considerable number of small sailing craft, all of which have been dragged over the portage, at the outlet of the lake, by man and horse, as everything has been dragged for years; and yet, under all these disadvantages, the trade of the lake has been on the increase.

LAKE MICHIGAN.—This is the second in size to Lake Superior; and as to situation, and the soil and climate of the surrounding country, is preferable, in many respects at least, to any other of the great lakes. Its southern extremity extends southward into one of the most fertile and productive agricultural regions on the globe. It lies between 41° 58′ and 46° N., and 84° 40′ and 87° 8′ W. long. On its western shore is the great indentation of Green Bay, itself as large as the largest lake in Europe, its area being about 3,000 square miles, or nearly half as large as Lake Ontario. It is well sheltered at its mouth by the Traverse islands, and has for its principal affluents the outlet of Lake Winnebago and the Fox river. The other principal streams emptying into Lake Michigan are the Menomenee, Escanoba, Noquet, White Fish, and Manistee rivers, from the north part of the Michigan peninsula; the Manistee, Maskegon, Grand, Kalamazoo, and St. Joseph rivers, from the south part of the peninsula; and the Des Plaines, O'Plaines, and Chicago rivers, from Illinois and Indiana. No lake in the world is surrounded by so rich an agricultural region as Lake Michigan. On its western shore is Wisconsin, with its productive grain and grazing lands, and its immensely valuable lumber region; on the northwest and north is that vast region of mineral wealth, which we have already described; on its eastern border is the

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* Dr. Owens' Geological Survey, p. 270. † Andrews' Report, p. 210.

Michigan peninsula, yielding such vast supplies of cereals, especially wheat and maize; and on the south and southwest lie Indiana and Illinois, whose inexhaustible stores of agricultural products amaze the world.*

In investigating the nature and extent of the trade of lake Michigan, we shall commence on its western shore, at the extreme north, at the port of Manitouwoc, a place almost unknown four years ago, but which now has, including the immediate surrounding country, a population of 5,000 inhabitants, and a trade already greater than was that of Chicago in 1839, as regards exports, although the imports are something inferior. The *exports* at present consist of lumber, laths, pickets, ashes, shingles, furs, wood, whitefish, &c., &c., to the value of $77,122 annually, the amount constantly increasing. Its *imports* consist of merchandise, as salt, beef, pork, butter, lard, meal, flour, dry goods, &c., to the amount of about $107,000; thus making its entire trade about $184,122 annually. The number of vessels that entered its port in 1851, was 788, and the tonnage 227,940 tons.

A few miles north of Manitouwoc is the port of Two Rivers, which is likely to become a considerable place of business. It is advancing rapidly. In 1847 its imports were only $53,747. In 1851 they were $115,000. The exports of 1851 were $112,763. Its entire trade, therefore, amounted, in 1851, to $227,763. In the same year there entered its ports 822 steam vessels, and 192 sail, or 1,014 arrivals in that year. The character of its exports and imports is the same as those of Manitouwoc.

The next port, going south, is that of Green Bay, situated at the head of the bay of that name, and at the mouth of Fox river. This port bids fair to rival Chicago itself as the lake depôt for all the lake trade which has its origin on the borders of the Upper Mississippi.† The work known as the Fox river improvement is now nearly, if not quite, completed. It connects the Mississippi with Lake Michigan by steam navigation. This work has made Fox river navigable for small steamers up into Lake Winnebago, of which it is the outlet. From Lake Winnebago, the canal passes to the Wisconsin river, which flows into the Mississippi. This is the first connection that has been undertaken of the Mississippi with the great lakes, for steam power. Fort Crawford, at the junction of the Wisconsin with the Mississippi, is 487 miles above St. Louis. When this canal is completed, one will be able to go, by water, from New-York to New-Orleans, by way of the great lakes.

The distance from Green Bay to the mouth of the Wisconsin is about 220 miles. The advantages of this connection with the

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* Andrews' Report, pp. 229, 230.

† Ibid, 204.

Mississippi, to Wisconsin, Iowa, and Minnesota, are immense and incalculable. Besides its facilities to emigrants, it will turn a vast amount of the trade of the Upper Mississippi towards the lakes.

Green Bay, which for several years has been a great depôt for fish and lumber, is now rapidly becoming the great commercial centre of Wisconsin. Between it and Buffalo there has been regularly plying a line of steamers, since 1851, which shows the present and growing importance of the place. It is making rapid strides in its progress. Within the last two years its trade has advanced beyond all previous calculation. Its total trade is now estimated by Mr. Andrews at $8,000,000—exports $2,000,000, and imports $1,000,000.

Following the lake shore we next arrive at Milwaukie, a port of entry, in lat. 43° 3′ north, and long. 87° 57′ west. The population of this place, in 1840, was only 1,712 inhabitants. It is now, or was, in 1850, by the census, 20,061. It is situated on the Milwaukie river, which forms a good harbor for vessels and steamers of light draft, but it needs some improvement to make it easy of access to larger crafts. The harbor is well sheltered against all but easterly winds. The city stands partly on the river and partly on the bluffs, which are very high, and overlooks for a great distance. It is ninety miles north of Chicago, and is the chief city of Wisconsin. It is the second city in size on Lake Michigan, Chicago being the first. It is 805 miles from Washington city. It is the market of the greater part of the products of Wisconsin. Steamboats and other vessels navigating the lake touch there on their way to and from Detroit and points on Lake Erie, and the St. Lawrence, Erie and Welland canals. The surrounding country is rich, and rapidly increasing in an industrious and enterprising population, of which Milwaukie is the nucleus and centre of trade. The city is remarkable for the peculiarly bright straw color and excellent quality of its *bricks*, for which the rich clay beds along the lake afford abundant material. Besides the large quantities of these which are exported, they are used for the majority of the buildings, some of which, in large and uniform rows of dwellings or stores, present a beautiful and splendid effect. The population of the city, in 1840, was only 1,712 inhabitants; in 1850, it was 20,061; the rate of increase being 1,072 per cent., or greater than that of any other city during the same period. The present population is estimated at 25,000. A rail-road is in progress from Milwaukie to the Mississippi, which is completed to seven miles beyond Palmyra, forty-three miles west of Milwaukie. It is intended to strike the Mississippi at Dubuque, or Prairie du Chien. During the last few years Milwaukie has not progressed so rapidly as formerly. Our commercial statistics for the city of Milwaukie for 1851, are as follow:

Imports	$14,571,371
Exports	2,607,824
Total	$17,179,195

The commercial district of Milwaukie comprises about 100 miles of the western shore of Lake Michigan. In this district are five ports, Milwaukie, Sheboygan, Port Washington, Kenosha, and Racine. These are all flourishing places, and the total trade (exports and imports) of each for 1851, was as follows, exclusive of Milwaukie:

Sheboygan,	$1,426,666
Port Washington,	1,043,850
Kenosha,	1,968,084
Racine,	2,507,715
Total,	$6,946,315

Racine, the largest of the four places, has a population of about 5,500. The site of the city is said to be the most beautiful west of Cleveland. The harbors of the four places are not safe at all times. The entire trade of the district for 1851, including Milwaukie, was as follows:

Imports,	$19,560,713
Exports,	4,564,779
Total,	$24,125,510

The total number of vessels entering the district was 5,000.

The *exports* of the district consist of wheat, flour, pork, beef, oats, barley, corn, wool, hides, lard, ashes, lead, lumber, laths, shingles, fish. The *imports* consist of assorted merchandise, salt, and the household property of emigrants. The district has no trade with Canada.

The district of Chicago embraces 80 miles of lake coast, proceeding eastward, and includes, besides Chicago, the ports of Michigan city and Waukegan. Michigan city is about 40 miles east of Chicago, and is the only lake port of Indiana. The Michigan Central Railway passes through this place. Its trade is small, being estimated at about $600,000. Its exports are wheat principally, wheat flour, corn, and oats.

Waukegan is on the west coast of the lake, 40 miles north of Chicago, and is a thriving place, but its harbor is not entirely safe. Its arrivals from sea during 1851, were 698 steamers, 244 propellers, 14 brigs, 105 schooners, 2 barks, and 3 sloops. Its trade in 1851 was as follows:

Imports,	$619,834
Exports,	194,818
Total,	$814,652

The city of Chicago is situated at the mouth of Chicago river, and is the commercial emporium of Lake Michigan and of the adjacent States. It is remarkable for its rapid increase in population, wealth and enterprise. It occupies both sides of the river, and is built on the border of a prairie elevated a little above the level of the lake. Few towns have a more advantageous position. The river, formed by the confluence of two branches in the upper part of the city, is deep and spacious enough for a vast number of steamboats and vessels of various kinds, which here assemble from different points on the lakes, the St. Lawrence, Erie, and Welland canals, and thickly line the wharves for some distance up the stream. The shore of the lake, naturally shallow, has been extended into deep water by means of two piers, which, projecting from both sides of the harbor, protect it from the accumulation of sand.

The streets of Chicago are generally broad and pleasant, lined with trees, and leading to the open prairie, or affording fine views of the lake. The buildings have the appearance of unusual comfort and convenience, while many of the public edifices are surpassed by those of few cities in the Union. Large warehouses and stores, five or six stories high, splendid hotels, churches, fine public schools and dwellings, frequently magnificent, are some of the structures which strike the eye and excite admiration.

Twenty years ago the lands of the adjacent prairie were the property of the Pottawatamie Indians. In 1833 the tribe removed by treaty to lands in Missouri, and the city began to rise, like magic, the moment their feet ceased to tread the soil. The progress of Chicago continues to be rapid.

The internal improvements, connecting Chicago with other places, are extensive and increasing. The Illinois and Michigan Canal, by connecting the lake with the Illinois river, has caused the current of trade which formerly flowed toward the Mississippi, to turn toward the "Garden City," as Chicago is called, making it the market of the rich products of Illinois, and of a vast trade in goods from the East. The lumber, grain, and cattle trade are those branches of commerce in which Chicago is most extensively engaged, and in which it surpasses all other western cities. The canal, which has contributed so largely to the growth of Chicago, extends from Chicago to Peru, the head of steam navigation on the Illinois. It is 106 miles long, 60 wide, and 6 feet deep. The descent between the two extremities is 20 feet. It was begun in 1836, and finished in 1849.

The rail-road connections of Chicago are very extensive. The Galena and Chicago Union rail-roads will, when finished, connect Chicago with Galena, the great *lead* depôt of the Northwest. The Southern and Central Michigan roads connect it with the Eastern States; while the great Central Road, which is rapidly progressing, and will probably be completed this year, will connect Chicago with Cairo, at the junction of the Ohio with the Mississippi. The extent of rail-roads in progress and in operation, connected with Chicago, is truly astonishing. The following statement, taken from the *Chicago Democrat*, shows the number of trunk and radiating lines, all of which are based upon that city:—

TRUNK ROADS.

Michigan Central	280	miles.
Michigan Southern	243	"
Chicago and Galena, to Freeport	125	"
Chicago and Rock Island	160	"
Chicago and Aurora	86	"
Illinois and Wisconsin	175	"
Chicago and Fort Wayne	180	"
Mississippi and Chicago	280	miles.
Lake Shore	92	"
Ill. Central, (Chicago to Cairo,)	353	"
New Albany and Salem	285	"
	2,279	

BRANCH ROADS.

Beloit Branch of Galena road	21	miles.
Beloit and Madison, (Extension,)	53	"
Dubuque and Galena, to Janesville	86	"
Dubuque and Galena, to Freeport	67	"
Savannah & Freeport Branch	35	"
Galena Branch of Ill. Central, from Freeport to junction with Aurora road	60	"
Fulton city to Dixon, branch	39	"
Ill. Central, from Clinton County to junction with Aurora road	195	miles.
Northern Cross and Central Military Tract, from Quincy, to connection with Aurora road	180	"
St. Charles Branch of Galena road	7	"
Fox River Valley	40	"
Mineral Point Branch road,	32	"
Janesville to Madison	34	"
Total miles of Branch Roads	849	

These roads are all either completed or in rapid progress, and in about three years there will be completed at least three thousand miles of rail-road, all based on Chicago. The Chicago and Cairo Road will be completed this year; and then, in connection with the Mobile and Ohio Road, it will be possible to travel from Chicago to Mobile in forty-eight hours!

Chicago owes its rapid growth to its advantageous situation, and to the enlightened enterprise of its citizens. In 1840, it had less than five thousand inhabitants; in 1850, it had twenty-eight thousand and upwards; having gained, in one year, 1849, five thousand two hundred. The lowest estimate of its population for January 1, 1852, was thirty-five thousand; but more generally it is rated at nearly forty thousand. No parallel for so great an increase exists.*

The trade of Chicago with Canada, for 1851, is as follows:—

Exports of domestic products and manufactures	$116,185
Imports	5,811
Total	$121,996

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* Andrews' Report.

The value of the principal articles of export and import, coastwise, for Chicago, for 1851, is as follows:—

Exports	$5,395,471
Imports	24,410,400
Total trade with Chicago, for 1851	$29,805,871

The total trade of Lake Michigan, then, may be summed up as follows, for 1851:—

Green Bay	$3,000,000	Michigan City	600,000
Milwaukie	17,179,195	Chicago	29,805,871
Sheboygan	1,426,666		
Port Washington	1,043,850		$58,346,033
Kenosha	1,968,084	Canada Trade	121,996
Racine	2,507,715		
Waukegan	814,652	Total	$58,468,029

LAKE HURON.—Mackinaw, situated on the island of the same name, 340 miles from Chicago, and 700 from Buffalo, is a place of considerable traffic. The principal exports are fish and furs, and the imports blankets, clothing, fishermen's supplies, and trinkets for Indians. There are no returns for its coastwise commerce. Its Canadian imports, for 1851, amounted to $3,967. The Detroit lake district is very extensive, embracing some fifteen ports, none of which, however, are of any importance, except Detroit and Monroe.

The city of Detroit is in lat. 42° 20′ N., and long. 83° 2′ W.; Its population in 1810 was 770; in 1820, 1,422; in 1830, 2,222; in 1840, 9,012; and in 1850, 21,057. The present population is estimated at about 27,000. It is 302 miles from Buffalo, 687 from New-York city, and 524 from Washington. It is a beautiful town, situated on the west bank of the Detroit river, 18 miles from Lake Erie, and 7 from Lake St. Clair. The city is handsomely laid out with broad streets; and there are several spacious public grounds. The city stands partly on an ascending slope from the river, and partly on a level plateau some 80 feet above it. It is a place of great importance, and rapidly increasing. The Detroit river is at this place about three-fourths of a mile wide, dotted with beautiful islands, and of depth sufficient for vessels of a large draught. The shores on both sides are in a state of garden-like cultivation; indeed the entire banks of the Detroit river, from Lake Erie to Huron, resemble a continuous village, with fine farms, pleasant villas, groves and gardens.* Detroit being not only the largest, but the oldest town in the State of Michigan, and enjoying all the advantages which arise from a central position, a magnificent river, and a harbor of unsurpassed capacity and security, has arrived at a stand of commercial eminence from which it can now never be dislodged.

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* Andrews' Report.

It is connected with both the East and West by rail-roads and the lakes.

The commerce of Detroit, according to the latest returns, is as follows:—

Imports, coastwise,	$15,416.377
Exports, "	3,961,430
Total,	$19,377,807
Imports, foreign,	$98,541
Exports, "	115,034
	$213,575
Entire trade of Detroit,	$19,591,482

The returns for the ports of Lake Huron are very imperfect. Exclusive of Detroit, the trade of the other ports of Lake Huron may be estimated at not less than $10,000,000. The tonnage of Detroit for 1851, was 1,826,336 tons. The trade with Canada, of the Detroit district, in 1851, was as follows:—

Imports,	$98,540
Exports,	115,032
	213,572
Tonnage,	59,027 tons.

The trade of Lake Huron may then be stated as follows:—

Detroit,	$19,591,482
All other ports,	10,000,000
Canada trade,	213,572
Total,	$29,805,054

LAKE ERIE.—We shall examine the trade of this lake, taking up the ports in the order in which they occur, beginning at Toledo, and proceeding eastward.

Toledo, a port of entry, has a population of about 5,000 inhabitants. It is advantageously situated for an extensive lake commerce, and has two canals, both connecting its port with the Ohio river, the Miami and Erie Canal connecting it with Cincinnati, and the Erie and Wabash traversing the entire Wabash valley, and terminating at Evansville. Toledo must become, ere long, the grand depôt for all the lake trade of the Miami and Wabash valleys. These valleys are not surpassed by any in the Union for their agricultural wealth.

Toledo is well situated on the west side of the Maumee river, near the head of Maumee Bay, 464 miles from Washington, and in lat. 41° 38′ N., and lon. 83° 35′ W. It is rapidly increasing. Its rail-road connections are extensive, connecting it with all the great points of the West and East. All these circumstances, with the fact that it has an excellent harbor, afford certain assurance of continued prosperity. It is destined to become a large city. Its trade, for 1851, is as follows:—

Imports, coastwise,	$22,987,772
Exports, "	7,847,808
Total,	$30,835,580

Maumee and Perrysburgh, both on the Maumee river, have the following trade:—

	Exports and imports.
Perrysburgh,	$503,810
Maumee,	46,764
Total,	$550,574

The Canada trade of Toledo, Maumee, and Perrysburgh, is as follows:—

Imports,	$26,469
Exports,	66,304
Total,	$92,773

Proceeding eastward, we arrive at the district of Sandusky, which includes the following ports: Vermilion, Huron, Milan, Sandusky, Venice, Fremont, Portage, Plaster Bed, and Port Clinton, embracing 50 miles of lake coast. The trade of Vermilion, at the mouth of the Vermilion river, for 1851, was as follows:—

Imports,	$116,295
Exports,	196,712
Total,	$313,007

Huron, at the mouth of Huron river, 10 miles east of Sandusky, has a tolerable harbor. A ship canal connects it with Milan, 8 miles above, on the Huron river. The trade of Huron, for 1851, was as follows:—

Exports,	$581,675
Imports,	877,155
Total,	1,458,831

In 1847, the trade amounted to about $3,000,000.

The trade of Milan, in 1851, amounted to $1,126,901. It is probable, says Mr. Andrews, that in 1847 the trade of Milan was included in that of Huron, thus accounting for the $3,000,000 above mentioned.

Sandusky is situated on the south shore of Sandusky Bay, about five miles from its mouth, and 60 miles west of Cleveland, and 414 from Washington. Its site is very beautiful, overlooking the whole bay, its entrance, a beautiful lake beyond, and its fine harbor dotted with sails and steamers. The bay is about 20 miles long and five broad, forming a shelter large enough to give anchorage to the whole lake marine. It has an average depth of 12 feet of water. The channel at the entrance has 11 feet. A rich and inexhaustible quarry of fine limestone forms the foundation on which the town stands, and furnishes materials for its buildings. It is connected by rail-roads with the East and West, and with Cincinnati and Columbus. It has about 8,000 inhabitants, and is rapidly increasing in prosperity. Its trade, in 1851, was as follows:—

Imports, coastwise	$15,985,357
Exports, "	6,459,659
Canada imports	272,844
Canada exports	99,088
Total trade in 1851[*]	$22,816,948
Its trade, in 1850, was	12,111,034
Increase in one year	$10,705,948

In 1851, Sandusky shipped to Canadian ports, 2,661,407 bushels of wheat.

Fremont, formerly called Lower Sandusky, is on Sandusky river, about 30 miles from Sandusky. It is accessible to vessels of light draft. It has a gradually increasing trade. In 1851 it was as follows:

Exports,	$314,530
Imports,	359,419
Total,	$673,949

Venice is a small place on Sandusky Bay, about 3 miles from Sandusky. It is noted for its flouring mills. In 1851, it exported flour, valued at $121,698.

Plaster Portage Bed is on the opposite side of the bay to Venice, and is engaged chiefly in the plaster trade, of which it exported, in 1851, to the amount of $18,507.

Port Clinton, the last place to mention in the Sandusky district, is situated on the lake, about 10 miles west of Sandusky. Its trade, in 1851, was as follows:

Exports,	$67,235
Imports,	59,049
Total,	$126,284

The entire trade, then, of the Sandusky district, in 1851, was as follows:—

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[*] Since writing the above, we have obtained, through the Cincinnati Price Current, the following for the trade of Sandusky, for 1852:

Imports,	$40,896,085
Exports,	18,789,814
Total,	$59,685,899
Total imports of other ports in the district,	4,176,321
Total exports " "	1,237,267
Total trade of Sandusky district,	$65,099,487

This shows an enormous increase for one year.

The total arrivals and departures of vessels, in 1852, was 6,492; in 1851, only 3,998.

Vermilion,	$313,007
Huron,	1,458,831
Milan,	1,126,901
Sandusky,	22,816,948
Venice,	121,698
Fremont,	673,949
Portage Plaster Bed,	18,507
Port Clinton,	126,284
Total,	$26,656,125

Next adjoining to Sandusky, eastward, is the district of Cleveland, the second in importance, and next to that of Buffalo. Unfortunately, we have no returns for this district, except those for the port of Cleveland. The other ports are very small places.

Cleveland is one of the most beautiful cities not only in the West, but in the whole United States. It is the emporium of northern Ohio. It is situated at the mouth of the Cuyahoga river. The shore of Lake Erie at Cleveland is a bold bluff, about eighty feet high, upon the level top of which is built the largest and best part of the city. The mouth of the Cuyahoga river constitutes the harbor, which is deep, spacious, and accessible. The entrance is marked by two piers of solid masonry, which project into the lake 1,200 feet. Vessels of the largest class enter the harbor and proceed some distance up the river. The great Ohio and Erie canal extends from the harbor of Cleveland to Portsmouth, on the Ohio, a distance of 307 miles, traversing the rich interior of the State. The Ohio and Pennsylvania canal connects the Ohio and Erie with Pittsburg and the East. Besides, Cleveland is connected with the East, West, and South, by those magnificent rail-roads that now form a network over the State.

The history of the rise of Cleveland is truly marvellous. In 1799, there was but a single family on the spot. In 1825, there were 500 souls there; in 1830, 1,000; in 1834, 3,400; in 1840, 6,071. At the present moment the population, including what is called Ohio city, is about 32,000.

As a place of business, Cleveland is of high importance, and is destined to become an immense city. Its delightful situation, on an elevated plain above the Cuyahoga, commanding a fine view of the lake and river, planted with groves of forest trees, and interspersed with fine squares, makes it a very desirable place for residences. Its harbor is one of the best on the lake. Two light-houses stand at its entrance.

The commerce of Cleveland, for 1851, was as follows:

Imports, coastwise	$22,804,159
Exports	12,026,497
Total coastwise	$34,830,656
Foreign Imports	360,634
" Exports	284,937
Total commerce	$35,476,327
Trade of Ashtabula	951,502
Total trade of the district	$36,427,829

The actual trade must be much greater than this, as there are six other ports of considerable importance for which there are no returns. The entire trade of the district is probably not far from $40,000,000.

The next line of lake coast is that called the Presque Isle district, embracing the entire Pennsylvania lake coast. The port of entry of this district is Erie, a beautiful town of 3,000 inhabitants, handsomely situated on Presque Isle bay, eighty miles from Buffalo. The port is tolerably good, but the trade is very limited, it being, in 1851, $4,206,483. It is, however, destined to rise, and to become a place of great importance.

The remaining portion of the lake coast, from the line of Pennsylvania to the Falls of Niagara, 100 miles, is called the district of Buffalo, embracing the ports of Schlosser, Tonawanda, Black Rock, Buffalo, Cattaraugus Creek, Silver Creek, Dunkirk, Van Buren, and Barcelona. Of these ports, Buffalo, Black Rock, Dunkirk, and Tonawanda, are the only ones claiming notice for their trade.

Tonawanda is twelve miles north of Buffalo, on the canal. It is a place of rapidly increasing business. Its trade, in 1851, amounted to $3,782,086, showing an increase of $2,576,592 above what it was in 1850.

The trade of Black Rock, in 1851, was $2,349,334. The principal trade of this port is with Canada, by means of a ferry.

Dunkirk is 45 miles west of Buffalo, and connected with it by a rail-road. It communicates with New-York city by means of the great Erie Rail-road, 464 miles long. Its harbor is good for vessels of light draft.

Until the opening of the Erie Rail-road, the commerce of Dunkirk was only nominal. Its trade, for 1851, was as follows:

Exports	$4,000,000
Imports	5,394,780
Total	$9,394,780

This shows, in a notable manner, the value of rail-roads to the commerce of a place.

The city of Buffalo, the port of entry for this district, is in latitude 42° 53′ north, and long. 78° 55′ west. Its population, in 1830, was only 8,668; in 1840, 18,213; and in 1850, 42,261. This shows an increase of 113 per cent. from 1830 to 1840, and 132 per cent. from 1840 to 1850. Its population now cannot be far from 50,000.

Buffalo is the great natural gateway between the East and West. All the great routes between Lake Erie and the tide waters of the Atlantic centre there. It is 288 miles from Albany, on a straight line, and 363 by canal, by rail-road 325. The harbor of Buffalo is good, but too small. It is expected, however, that some improvements, now in progress, will give it a capacity that will meet all the requirements of its trade for several years to come. The trade of Buffalo, for 1851, was as follows:

Imports	$31,889,951
Exports	44,201,720
Total	$76,091,671

This shows an increase of more than $9,000,000 over the trade of the port for 1850. Its trade with Canada, in 1851, was as follows:

Imports from Canada,	$507,517
Exports to "	613,948
Total,	$1,121,465

This added to the other trade as given above, makes the total trade of Buffalo, $77,113,136.

The tonnage of Buffalo harbor, in 1851, was 212,480 tons, including foreign arrivals.

The total value and quantity of property received from the West and shipped to the West, for the entire district of Buffalo, for the year ending January 1, 1852, was as follows:

	Tons.	Value.
Received from the west at Buffalo, Dunkirk and Tonawanda,	901,811	$37,979,614
Shipped westward from Buffalo, Dunkirk and Tonawanda,	225,440	51,288,923
	1,127,251	$89,268,537

We are now prepared to sum up the entire trade of Lake Erie, for 1851, as follows:

Toledo,	$30,835,580	Portage Plaster Bed,	18,507
Perrysburg,	503,810	Port Clinton,	126,284
Maumee,	46,764	Cleveland,	40,000,000
Canada trade of the above places,	92,773	Ashtabula,	951,502
Vermilion,	313,007	Erie,	4,206,483
Huron,	1,458,831	Tonawanda,	3,782,086
Milan,	1,126,901	Black Rock,	2,349,334
Sandusky,	22,816,948	Dunkirk,	9,394,780
Venice,	121,698	Buffalo,	77,113,136
Fremont	673,949		$195,932,373

LAKE ONTARIO.—The first commercial district of Ontario which we shall notice is that of Niagara, comprising the ports of Oak Orchard Creek, Olcott, and Wilson on the lake coast, and Lewiston and Youngstown on the Niagara river. Lewiston is the port of entry of the district. It is situated on the east side of the Niagara river, 7 miles from its mouth, opposite Queenston, Canada. It has a population of 3,000, and communicates with Buffalo and Lockport by railway, and with all the principal ports of Lake Ontario by daily steamers.

As there are no definite returns from this district, in detail, we can only give the totals for the whole district as follows, for 1851:

Total foreign trade,	$689,769
Total coastwise "	670,318
Total commerce of the district,	$1,360,087

Next, proceeding eastward, is the district of Genessee, which has but a very limited trade, there being but one shipping port on a line of 80 miles of coast. This port is at the mouth of the Genessee river, 3 miles from Rochester. Its trade is entirely Canadian, which was, for 1851, as follows:

Imports,	$49,040
Exports,	913,654
Total,	$962,694

The imports from Canada are chiefly in British vessels.

The next district eastward is that of Oswego, embracing the ports of Texas, Salmon River, Sandy Creek, Oswego, Little Sodus, and Sodus Point. Oswego is the port of entry for the district, and is in lat. 43° 25′ N. and long 76° 37′ W. Its population is about 13,000. Its advantages for coast and Canadian trade are very great, and by its rapid strides in progress, of late years, it has attained an importance among the great business marts of the lakes, which guarantees an indefinite increase of its commercial and maritime power. Its advantages are three-fold: its easy communication with New-York, Boston and Ogdensburg, by rail-roads and canals; its commodious harbor; and thirdly, its direct communication with the most populous parts of Canada.

The trade of Oswego, for 1851, was as follows:

Imports, coastwise,	$6,083,036
Exports "	11,471,071
Imports from Canada,	1,784,412
Exports to Canada,—foreign goods,	915,900
" " domestic "	2,291,911
Total trade,	$22,546,330

The Canadian trade of Oswego is nearly one-half of the entire trade of the United States with Canada. The trade of the other ports of the district is merged in that of Oswego.

The district of Sackett's Harbor is the last on Lake Ontario. It includes several small ports, none of which are important, except Sackett's Harbor, which is situated on a deep inlet, called

Black River Bay, in lat. 43° 55′ N., and long. 75° 57′ W. Its population is about 5,000. Its harbor is the best on Lake Ontario. Although this place possesses many natural advantages, it has been on the decline for several years. Its entire trade, coastwise and Canadian, for 1851, was only $879,165. In 1846 it was $2,735,091; and in 1847, $2,141,445. The cause of this decline is undoubtedly owing to the fact that Sackett's Harbor has none of those great rail-road connections which have so rapidly built up other cities—almost in a day.

The entire trade of Lake Ontario, then, may be set down as follows:

Niagara district,	$1,360,087
Genessee "	962,694
Oswego "	22,546,330
Sackett's Harbor "	879,165
Total,	$25,748,276

Here closes our rapid but faithful review of the trade of the five great lakes, Superior, Michigan, Huron, Erie, and Ontario. We are now able to sum up the entire trade of those lakes, for 1851, as follows:

Superior,	$1,675,000
Michigan,	58,468,029
Huron,	29,805,054
Erie,	195,932,373
Ontario,	25,748,276
Total,	$311,828,732
If to this we add the trade of Lake Champlain,	26,390,895
We have for the trade of all the lakes,	$338,219,627.

The tonnage of all the lakes is as follows:

Steamers,	74,000 tons.
Sail vessels,	138,000 "
Total,	212,000 "

The entire number of steamers on the lakes, in 1851, was as follows:

Champlain,	17
Ontario,	17
Erie,	114
Straits of St. Clair,	12
Michigan,	14
Superior,	6

The above statement of the amount of the trade of the lakes is probably far short of the truth, since the returns are very imperfect, there being none from several places.*

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* For more minute details regarding the lake trade, we refer the reader to Mr. Andrews' very elaborate and valuable report, and to the papers contained in the previous volumes of the Review, condensed into the Industrial Resources, from which Mr. Andrews has freely drawn when treating of the resources of the South and West.

Art. V.—THE GEOGRAPHY OF COMMERCE.*

THE WINDS AND THE CURRENTS—THE TIDES AND THE SEAS—THE UNITED STATES OBSERVATORY AND LIEUTENANT MAURY.

THE time is probably not far distant when the popular will, no less than the enlightened good sense of the statesmen of the country, will settle practically how far the government of the Union may be permitted "to provide for the general welfare," by the encouragement of science. Custom in such matters, whence no further usurpations can possibly arise, becomes almost as authoritative as a constitutional sanction; and unless we greatly misapprehend the character of the American people, few will be disposed to blame herein a leaning to the liberal side. The temptation to aid the national genius in the acquisition of those unfading laurels, awarded by universal consent to the successful discoverer of what is truly great and widely useful in these fields, might tempt the most rigid constructionist to relax here his rules, and admit, if possible, an exception to his political creed. The fame of one illustrious philosopher, one of the founders of American independence, is already blended with the history of human thought as well as political enfranchisement; and whether the spirit in which he pursued knowledge, or the magnitude of his additions to the common stock, are considered, it must be admitted that his example still modifies all legitimate inquiry into the august secrets of Nature. The era of Franklin was but the dawn of modern science. The laws, the modifications, and the analogies of light, heat, chemical affinities, and electricity, in its Protean forms, were then just emerging to human ken. The stone tables, on which, as on the leaves of a book, the earth's history are imprinted, were at that time united by unbroken seals. Observation had not yet accumulated a mass of records, nor been sufficiently extended to trace the varying intensities of the great powers of nature over the surface of the earth, and thus create a true philosophic geography. It is worthy of mention, that one of the most important features of our planet was pointed out by the great Franklin, and that he traced that portion of the ocean stream which rushes past our shores, and bestows on Western Europe its genial and temperate climate, its fertilizing showers, and abundant harvests. Since that period there have been travelers, like Humboldt and Von Buch, who have measured mountains and gauged streams, watched the fires of the volcano, and explored the causes of those powers that sweep the surface or shake the depths of the earth. Every year the number of observers is increased; the circle of stations at which these investigations are prosecuted is continually widening; while commerce, allured by the promises of greater and more certain gains, bids fair soon to be pressed into the zealous service of science. Physical geography, the most attractive of the departments of the study of Nature, embracing the view and discussion of her phenomena on the widest field that man can grasp, by the aid of all the senses, and presenting subjects at once uniting the enjoyments of the imagination and the reason, and gratifying the passion for knowledge and the desire of profit, is now for the first time possible. The various *meters*, the delicate instruments of modern research, the product and realization in art of scientific progress, are now in the hands of every traveler. He reads off their scales the temperature of the air, the earth, and the ocean, the heights of mountains, the quantity of moisture contained in the air, and many similar relations are by their means accurately ascertained and measured, at every point whither man can penetrate. Governments have rivalled each other in fitting out expeditions for research and exploration; and if the cultivation of the sciences under the direct patronage of our own, notwithstanding such precedents, be questioned, as on another long vexed subject, we may suppose that the popular voice will incline to advance this cause whenever it can be done in an incidental way.

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* Explanations and Sailing Directions to accompany the Wind and Current Charts, approved by Com. Charles Morris, Chief of the Bureau of Ordnance and Hydrography, &c. Published by authority of J. P. Kennedy, Secretary of the Navy. By M. F. Maury, LL.D., Lieutenant U. S. N., Superintendent of the National Observatory. 5th edition. Washington, C. Alexander, Printer, 1853.

The valuable volume of "Sailing Directions," by Lieutenant Maury, is but among the first fruits of what we may reasonably expect from the patriotic and liberal character of the officers of the navy and army. The younger officers are now, as a class, admirably qualified, by their tastes and education, to second any system of scientific observation that may be adopted by the national authority. The coast survey and the naval observatory were the first steps made in this direction by the government, and they have already well repaid all that has been laid out in their maintenance and prosecution. The equipment and *materiel* of the Washington Observatory may be inferior to the imperial endowments of Pultowa or Greenwich, but the genius and untiring industry of its superintendent has already given it a world-wide celebrity. When the exacting and ceaseless duties of his station are considered, it is astonishing how he should have accomplished so much for the geography of commerce and navigation, as may be inferred from the articles in the "Sailing Directions," or when he found time for the arrangement and tabulation of the observations contained in thousands of log books, the results of which gigantic labor we find in the same volume. We propose to look at what has been thus accomplished by Lieutenant Maury for commercial geography, under the three heads: first, the establishment of a regular system of observation, to be carried out by the various national and commercial marines of the world; second, the contributions already made to science by the materials collected under the direction, and arranged by the author; and third, the practical rules and directions which are therein laid down for the guidance of the navigator, with the results already obtained by following them.

These undertakings have received the sanction of the most distinguished physicists of the age, among them the illustrious Humboldt, who, in writing to a friend, (Dr. Flûgel, U. S. Consul at Leipzic,) says,—

> "I beg you to express to Lieut. Maury, the author of the beautiful charts of the winds and currents, prepared with so much care and profound learning, my hearty gratitude and esteem. It is a great undertaking, equally important to the practical navigator and for the advance of meteorology in general. It has been viewed in this light in Germany, by all persons who have a taste for physical geography. In an analogous way, anything of isothermal countries, (countries of equal annual temperature,) has, for the first time, become really fruitful. Since Dove has taught us the isotherms of the several months chiefly on the land—since two-thirds of the atmosphere rests upon the sea—Maury's work is so much the more welcome and valuable; because it includes at the same time, the oceanic currents, the course of the winds, and the temperature."

It is comparatively easy to map out the course of rivers over the land, and follow them from the glacier of the mountains to the ocean estuary, through their channels. This is but the visible half of the ceaseless circle which the waters make over the land. A far more difficult task it is, to track the viewless winds and weigh the watery freights they carry from the ocean, and lay down so slowly and gradually in the fog, the dew, the shower, and the noiseless snow; or to pursue the oceanic currents that feed these thefts of the winds, and map out their path—

Parietibus textum cæcis iter.

The solution of the grand problems of physical science connected with navigation do not rest there; they overflow to other branches of human labor and interest. Agriculture, and the health and happiness of mankind, are blended with the course of the winds and the distribution of heat and moisture. The farmer, as well as the mariner, looks up and watches the appearance of the heavens; and plentiful crops and prosperous voyages equally depend on the agencies which set in motion the winds, and uplift the clouds from the ocean. The beauty and impressiveness of these signs, in which Nature addresses Man, render them worthy of the poet. Happy he who can read them aright.

> THE LANGUAGE OF NATURE.—"The wind and rain, the vapor and the cloud, the tide, the current, the saltness, and depth, and temperature, and color of the sea, the shade of the sky, the temperature of the air, the tint and shape of the clouds, the height of the tree on the shore, the size of the leaves, the brilliancy of the flowers—each and all may be regarded as the exponent of certain physical combinations, and, therefore, as the expression in which Nature chooses to announce her own meaning; or, if we please, as the language in which she writes down the operation of her own laws. To understand that language, and to interpret aright those laws, is the object of the undertaking which those who co-operate with me have in hand. No fact gathered in such a field as this, therefore, can come amiss to those who tread the walks of inductive philosophy; for, in the hand-book of Nature, every such fact is a syllable; and it is by patiently collecting fact after fact, and by joining together syllable after syllable, that we may finally seek to read aright from the great volume, which the mariner at sea and the philosopher on the mountain see spread out before them."

Among the friends and collaborators of Lieut. Maury may be mentioned Dr. Buist, a distinguished *savant* of India, who announces, in the transactions of the Bombay Geographical Society, that the Assistant-Secretary, Mr. Macfarlane, "has made considerable progress in the construction of wind and current charts, founded on the information supplied by ships' logs, and on the principle of Lieut. Maury." What has been done for the Indian and the Northern Atlantic Ocean reveals the value of concert of observation among the navigators and meteorologists of the world. In a letter to Lieut. Maury, dated 17th November, 1851, Dr. Buist, after alluding to a vast mass of facts collected by observers in the Indian seas, observes:—

> "Three years since, I began to perceive that we had certain classes of storms that occurred periodically, not only all over India, but all over the region to which my information extended, and that these were synchronous, or nearly so. I then began a series of maps, illustrative of the matter."

A system of stations and the co-operation of navigators is naturally suggested by what has already been done. It must be seen, that a true science of meteorology is impossible from local observations. We may watch the height of the barometer, and record the amount of moisture in the air, set rain gauges for ever, and yet be merely accumulating facts that in themselves have no significance. The relations of the river, the rain, and the ocean, are not local; they belong to universal geography, and are, literally,

"General, as the casing air,"

the atmosphere which forms the invisible link in the mighty orbit of the waters about the earth. Nature herself seems here to refuse to be evoked by the efforts of the individual mind, and demands for the revelation of her secrets to be everywhere watched. We look upon the plans proposed by Lieut. Maury to compass this, as amongst the most important scientific movements of the day. The letter of Dr. Buist, before referred to, and one received by Lieut. Maury, about the same time, from C. Meldrun, Esq., Secretary of the Meteorological Society, gave encouragement that they were practicable.

Towards the end of the year 1851, the idea of a conference between the meteorologists of Russia and those of the United States was suggested by Kupffer, a laborious meteorologist of the former country; and about the same time a proposition was made by the British Government that that of the United States should co-operate in making these observations at certain foreign stations, and according to instructions prepared by General Burgoyne, Inspector-General of Fortifications. This was felt to be an auspicious moment to secure concert of action among meteorologists on shore, and co-operation among navigators at sea everywhere; and Lieut. Maury then, in reply to the British proposition, suggested that sea and land should be included as the field, and that a general conference of meteorologists and navigators should be held to discuss the plans, draw up the forms, fix the standards, and select the instruments to be employed on this grand field of research.

A UNIVERSAL SYSTEM OF OBSERVATIONS.—The basis originally proposed by the British Government to that of the United States, is contained in the instructions drawn up by order of the Inspector-General of Fortifications, Sir John Burgoyne, the circular letter of Lord Palmerston to British consuls, and that of Lord Glenelg to Colonial Governors. Nineteen principal stations in the colonies of Great Britain were selected as the points of regular record. These were to be supplied with sets of instruments of similar construction. Twenty sets were to be sent to India, by the Board of Directors of the East India Company, and provision made of the same character for observations at Ascension, Rio de Janeiro, Callao and Valparaiso. The letter of Lord Palmerston to British consuls has reference to the labors of Col. Reid in developing the theory of storms, and the investigation "of the laws by which storms and variable winds are governed," and requests their co-operation in procuring information "on facts connected with the atmospheric phenomena in question," and to transmit a half-yearly abstract of the same to the home government.

The circular addressed to the officers of the government of India, desires them—

> "Upon the occurrence of any hurricane, gale, or other storm of more violence than usual, to note accurately the time of its commencement, the direction from which the wind first blows, whether in gusts or regular, and whether accompanied with rain, thunder and lightning, or other phenomena. Also, to note, with as much accuracy as possible, the changes of direction in the wind, and the time of occurrence of each; and lastly, the duration of the gale, and in what quarter the wind is when it ceases. The variations of the thermometer and barometer at each period noticed will also be of importance, if the means are forthcoming of making such observations."

On the transmission of these instructions to the United States government, for the purpose of securing its co-operation in the plan, Lieut. Maury brought forward as an amendment a system of universal observation on sea as well as on land, and securing the assistance of the commercial marines of the civilized nations of the earth in carrying out its details. We copy the following from the paper of Lieut. Maury, on this subject:

> "The plan, though it fully recognizes the value of the aid which governments can give, by no means overlooks the importance of that kind of co-operation and aid which is to be derived from the hearty good-will of good men, and from the voluntary co-operation of that powerful corps of meteorological observers and navigators who labor in the private walks of life.
>
> "Man is a meteorologist by nature;" and every one who observes the wind and the weather, and who is in the habit of noting the thermometer and the barometer, is already an observer, whose services it is desirable to secure, and whose labors in the field meteorological the plan in contemplation proposes to make available. In like manner, "all who go down to the sea in ships" are invited to co-operate: for they, too, are observers. That this immense corps of laborers who are already in the field should act in concert and "pull together," is the object of the present plan. Therefore, the men of science, the scientific societies, the shipowners and ship masters, the directors of corporations, and the faculties of universities, and the members of the various institutions for the promotion of science, and good men every where, are requested to lend this scheme their good-will, their influence, their aid, and their co-operation.
>
> "The importance of concert among meteorologists all over the world, and of co-operation between the observer on the shore and the navigator at sea, so that any meteorological phenomenon may be traced throughout its cycle both by sea and land, is too obvious for illustration, too palpable to be made plainer by argument; and, therefore, the proposition for a general conference to arrange the details of such a comprehensive system of observations, addresses itself to every friend of science and lover of the useful in all countries.
>
> "The domain of this science is the atmosphere: its boundaries embrace the land and cover the sea. To comprehend the laws which govern the movements of a machine so vast as it is, requires that its operations should be observed in all its parts, and watched from all points at the same time. Its motions are freer and less obstructed over the water, than they are by the land and across the mountains. Indeed, the ocean itself may, in one sense, be regarded as a grand expression of meteorological agencies; therefore the good-will and friendly co-operation of private ship-owners and masters, in all maritime countries, is considered of great importance to the cause in hand."

The proposition for a universal system of observation, as suggested by Lieutenant Maury, was soon after submitted to the Royal Society, and, so far as an extension of these to the sea is concerned, it received a warm approval. The report adopted by the society recommends that instructions similar to those given to American shipmasters, according to the scheme submitted by Lieutenant Maury to the Bureau of Ordnance and Hydrography in 1842, be given "to every ship that sails" from British ports, with a request to transmit the results of them to the Hydrographer's Office of the Admiralty. The labors of the two greatest naval and commercial nations of the world, it is hoped, may be thus united in promoting the interests of navigation.

At this moment we have the satisfaction to know that the preliminary step has been taken, and that a convention of meteorologists is now about to be held at Brussels, and Lieutenant Maury is now absent in attendance upon its deliberations. That its results may be to secure the great end of obtaining these world-wide observations, will not only greatly advance the interests of science and navigation, but tend to elevate and educate the large and useful class of men now attempted to be attracted to the study of nature on the mighty deep.

The additions that have been made to geographical science since American shipmasters have been engaged, under the guidance of Lieutenant Maury, in the business of watching and recording the course of the winds, the clouds, and the currents, have not been few or unimportant. The power of such discoveries in changing the course of trade is well illustrated by the influence of the Gulf Stream on the trade of Charleston. During the colonial times, the course of trade was to make that port the half-way house for vessels bound from England to the northern ports. If driven off the coast during the winter by gales and snow storms, they returned to Charleston, and there remained until spring. When Dr. Franklin taught the mariner to know when he crossed the banks of this ocean river, by dipping a thermometer into the water, it was, to use the graphic words of the navigators, as if blue and red lines were drawn on the ocean. This discovery shortened the passage to the west from sixty to thirty days. It changed the course of trade. Vessels, instead of running to Charleston to avoid a snow-storm, now stood off for a few hours, thawed out the ship and her crew in the warmth of the Gulf, and were ready for another attempt to make their port. The commercial ascendency of New-York, according to Lieutenant Maury, is due primarily to the discovery and use in navigation of the Gulf Stream, and secondly, to the establishment, by Jeremiah Thompson and Isaac Wright, of the regular packet line between New-York and Liverpool; and the change in the course of trade thus brought about, has destroyed the commercial ascendency among the ports of the Atlantic seaboard once enjoyed by Charleston.

The view of the general circulation in the atmosphere, as traced by the investigations of Lieutenant Maury, is of the highest interest. The trade winds of the tropical seas have long been known, and form two links in the circuit of the winds around the earth. The ocean scenery of the region of the trades is among the most beautiful to the thoughts and the senses that can be conceived. The machinery of nature aiding so palpably the objects of man, and uniting lands divided so widely by the ocean; the canopy of flying clouds; the fresh and exhilarating breeze blowing day and night in one direction; the charming temperature and the moderate swell of the waves, make it the elysium of the mariner. The gentle spirit of the earth seems to be there bodily present; and the picture of a fleet hanging in the clouds, always an impressive object, becomes exquisitely poetic in its associations, when—

> "They on the trading flood,
> Through the wide Ethiopian to the Cape
> Ply stemming nightly towards the pole."

These trade winds are the great evaporating winds of the ocean; and, as we learn from the investigations of Lieutenant Maury, the belt of the S.E. trades in the South Atlantic is not only more extensive than the N.E. trades in the South Atlantic, but the winds themselves are fresher in the south. The very natural conclusion is, that the increased water thus taken up goes to feed in part the rivers of the northern hemisphere. At the equator these surface winds meet, and form a belt of calms, a node of upward winds, the northeast trade wind becoming a northwest upper current, and the southeast trade a southwest wind in the upper regions of the atmosphere overlying the north torrid zone. At the tropics, two other nodes of calms and of downward currents are met, with the two descending nodes of the orbit of the winds. The prevailing surface winds should now blow in spirals from the southwest towards the north pole, and in similar spirals from the northwest towards the south pole. At the poles the upward current produces another region of calms, whence the winds begin from north and south other revolutions towards the equator. And this system of winds is the source of

THE RAINS.

"To evaporate water enough annually from the ocean to cover the earth, on the average, five feet deep, with rain; to transport it from one zone to another, and to precipitate it in the right places, at suitable times, and in the proportions due, is the office of the grand atmospherical machine. This water is evaporated principally from the torrid zone. Supposing it all to come thence, we shall have, encircling the earth, a belt of ocean 3,000 miles in breadth, from which this atmosphere evaporates a layer of water annually 16 feet in depth. And to hoist up as high as the clouds, and lower down again, all the water in a lake 16 feet deep, and 3,000 miles broad, and 24,000 long, is the yearly business of this invisible machinery. What a powerful engine is the atmosphere!

"In some parts of the earth the precipitation is greater than the evaporation; thus, the amount of water borne down by every river that runs into the sea may be considered as the excess of the precipitation over the evaporation that takes place in the valley drained by that river. In other parts of the earth the evaporation and precipitation are exactly equal, as in those inland basins such as that in which the city of Mexico, Lake Titicaca, the Caspian Sea, etc., etc., are situated; which basins have no ocean drainage. If more rain fell in the valley of the Caspian than is evaporated from it, that sea would finally get full and overflow the whole of that great basin. If less fell than is evaporated from it again, then that sea, in the course of time, would dry up, and plants and animals would all perish there for the want of water. In the sheets of water which we find distributed over that and every other inhabitable inland basin, we see reservoirs or evaporating surfaces just sufficient for the supply of that degree of moisture which is best adapted to the well-being of the plants and animals that people such basins. In other parts of the earth still, we find places, as the Desert of Sahara, in which neither evaporation nor precipitation takes place, and in which we find neither plant nor animal.

"In contemplating the system of terrestrial adaptations, these researches have taught me to regard the great deserts of the earth, as the astronomer does the counterpoises to his telescope—though they be mere dead weights, they are, nevertheless, necessary to make the balance complete, the adjustments of this machine perfect. These counterpoises give ease to the motions, stability to the performance, and accuracy to the workings of the instrument. They are *compensations*."

A strong corroboration of the hypothesis that the southeastern trades are deflected into the upper regions of the atmosphere, is the fact that the occasional showers of dust to be met with in the Atlantic, not far from the belt of calms of Cancer, and in the neighborhood of the Cape de Verd Islands, and sometimes extending to the northern coasts of the Mediterranean, contain the remains of infusoria, whose habitat is not Africa, but South America, and the southeast trade-wind region of South America. These remains cause the red fogs and sea-dust of the North Atlantic, the Cape de Verd Islands, and the dust-winds of southwestern Europe.

THE EQUATORIAL CLOUD-RING.—The graphic essay on the above subject, by Lieut. Maury, is well known; it forms part of his theory of the circulation of the atmosphere, and the following is his explanation of its formation:

"In a clear day at the equator, this cloud-ring having slid to the north or south with the calm belt, the rays of the sun pour down upon the crust of the earth, and raise its temperature to a scorching heat. The atmosphere dances above it, and the air is seen trembling in ascending and descending columns with busy eagerness to conduct the heat off, and deliver it to the regions aloft, where it is required to give momentum to the air in its general channels of circulation. The dry season continues; the sun is vertical; and finally the earth becomes parched and dry; the heat accumulates faster than the air can carry it away; the plants begin to wither, and the animals to perish. Then comes the mitigating cloud-ring. The burning rays of the sun are intercepted by it. The place for the absorption and reflection, and the delivery to the atmosphere of the solar heat, is changed; it is transferred from the upper surface of the earth to the upper surface of the clouds.

"Radiation from the land and the sea below the cloud-belt is thus interrupted, and the excess of heat in the earth is delivered to the air, and by absorption carried up to the clouds, and there delivered to their vapors to prevent excess of precipitation.

"In the meantime, the trade winds north and south are pouring into this cloud-covered receiver, as the calm and rain-belt of the equator may be called, fresh supplies in the shape of ceaseless volumes of heated air loaded to saturation with vapor, which has to rise above and get clear of the clouds before it can commence the process of cooling by radiation. In the meantime, also, the vapors which the trade winds bring from the north and the south, expanding and growing cooler as they ascend, are being condensed on the lower side of the cloud stratum, and their latent heat is set free to check precipitation and prevent a flood.

"While this process and these operations are going on on the nether side of the cloud-ring, one not less important is going on on the upper side. There, from sunrise to sunset, the rays of the sun are pouring down without intermission. Every day, and all day long, they operate with ceaseless activity upon the upper surface of the cloud stratum. When they become too powerful, and convey more heat to the cloud vapors than the cloud vapors can reflect and give off to the air above them, then, with a beautiful elasticity of character, the clouds absorb the surplus heat. They melt away, become invisible, and retain, in a latent and harmless state, until it is wanted at some other place and on some other occasion, the heat thus imparted."

THE GEOLOGICAL AGENCY OF THE WINDS.—The geological relations between the wind, the land, and the water, are shown to have an intimate connection with the fertility and habitable quality of each region. The largest portion of the surface swept by the southeastern trades is water; but those regions which lie to the northeast of South America and Africa, in the northern hemisphere, are deserts, and were it not for the inland seas of Europe and Asia, these regions would be still more extensive. In like manner, Australia occupies in the southern hemisphere a position opposite to the continent of Asia, and, being swept by winds borne over a vast extent of land, while in contact with the surface, is found to be mostly a desert. If this contental mass were removed so as to occupy the space in the South Pacific swept by the southeast trades, which blow as southwest winds over the basins of the great rivers and lakes of North America, the channel of the Mississippi would resemble that of the Australian rivers, and present a dry and dusty trough in the midst of a desert, the great lakes would be drained, and Niagara no longer resound with the whirl of its world of waters. If ever there was a time when the Andes and the Continent of South America were submerged, then the ancient winds that fell on the region of Central Asia, and the basins of the Caspian and Aral, were swelled with the waters that now are discharged, in part, by the Amazon and Orinoco into the ocean, and those seas were united, forming a Mediterranean of vast extent, and probably discharging its waters by an estuary more magnificent than the St. Lawrence. According to the circulatory scheme of the atmosphere, the winds that play over the torrid zone of one hemisphere become the surface winds of the temperate zone of the other hemisphere. Fill up the south torrid zone, the region of the southeast trades, with land, and the north temperate zone would become one vast Sahara. Such, in brief, is the aspect of the dry season in the geological cycle, happily not co-existing with man's possession of the planet.

"The Saltness of the Sea" is the title of another of the series of interesting papers contained in the present volume. We are unable to do more than to state that it is to this quality, in connection with the evaporation caused by heat and the passage of the winds over the water, that the currents of the ocean owe their extent and depth. By these agencies, a general circulation of the waters of the sea is maintained; and so complete is it, that the per centage of its salt is found to be nearly the same in every part of the globe.

Following the discussion of a general circulation of the waters through the entire ocean, is the argument so intimately connected with it, and now so deeply interesting both to philanthropy and science, that a permanently open sea exists in the Arctic basin. The study of the currents of the ocean have led Lieut. Maury strongly to the conclusion, that the pole is surrounded by this sea instead of being piled by everlasting barriers of thick-ribbed ice. The report of Lieut. De Haven, the commander of the Grinnell Expedition, the first of the noble enterprises set on foot from the United States to aid in the discovery and rescue of the lost ships of Sir John Franklin, follows; and in the midst of the dangers of the dreary cruise during the long nights of those two polar winters, a ray of hope, faint though it be, hangs over the track of the intrepid Kane, who has dared again the perils of the Arctic Sea at the joint command of humanity and national glory.

DEEP SEA SOUNDINGS.—To determine the depth of the ocean, and approximately the outline of its abysses and shallows, will furnish data of the utmost value in completing the theory of the tides. We believe that American officers have been the foremost, and, with a few exceptions, the only investigators in this problem. Already they have contributed enough to make out a chart of the bottom of the Atlantic, which gives a general idea of the slopes and hollows of that ocean valley, and its transverse branches, the Caribbean Sea and the Gulf of Mexico. The first cruise of the "Fanny," the schooner despatched on this service of making these explorations, cleared up all doubts as to the non-existence of certain fancied rocks and shoals which had been long enough bugbears to navigators. The following is the list of rocks found to be purely imaginary during the cruise.

	Latitude North.		Longitude West.	
Ashton Rock	33°	50′	71°	40′
False Bermudas	32	30	58	40
Nye's Rock	31	15	55	50
Van Keulen's Vigia	31	40	38	20
Joryna Rock	31	40	23	45
Steen Ground	32	30	21	15
Mary's Rock	19	45	20	45

Lieut. Berryman, in the United States brig "Dolphin," reports, in 1853, that nothing has been found at the places indicated:

	Latitude North.		Longitude West.	
Eight Stones	34°	22′	16°	40′
Jean Hammond's Rock	36	56	19	50
Haugault's Rock	40	58	48	40
Daraile's Rock	40	52	54	42
Haugault's Breakers	41	7	49	23
35 Fathom Shoal	42	32	45	17
—— Rock	30	50	27	19

At some of these localities soundings were taken, with depths of from 2,200 to 4,600 fathoms. The greatest depth sounded in the Taney was in latitude 31° 59′ north, long. 58° 43′ west, on the 15th November, 1849, when 5,700 fathoms of wire were let out without reaching bottom. The form of the deepest portion of the North Atlantic is that of a *y*, lying northwest and southeast, the two divisions being in the former direction, and stretching from 20° to 40° north latitude, and from 40° to 60° west long. Just on the verge of one of the divisions of the *y*, the Bermudas rise from the sea, forming apparently a peak mostly submerged, of nearly six miles in height. The *y* form is preserved in the next higher shelf of the bottom, only the tail is prolonged, forming a long trough between the two continents of South America and Africa. Two lines of soundings have recently been run across the Atlantic by Lieut. Berryman, in the Dolphin; they confirm the supposition, that the depth of the North Atlantic is nowhere greater than 5,000 fathoms. No little practical difficulty is experienced in sounding these depths, and the best check, in fact it is indispensable, to observe the rate at which the wire or twine is delivered from the reel. Without this precaution, currents and counter-currents may operate on the line long after the plummet is on the bottom. The following is a series of deep sea soundings recently made from the brig Dolphin, Lieut. O. H. Berryman, and extracted from a letter of our author. It will be seen that it exhibits the profile of two lines carried across the North Atlantic.

Date.	Lat. N.			Long. W.			Depth in Fathoms.	
	D.	M.	S.	D.	M.	S.		
Oct. 4, 1852	39	39	00	70	30	00	1,000	no bottom.
“ 7 “	41	12	00	62	38	00	2,200	bottom
“ 9 “	41	40	00	59	23	00	2,600	“
“ 10 “	41	40	00	56	01	00	2,595	“
“ 11 “	40	36	00	54	18	30	3,450	“
“ 20 “	41	07	00	49	23	15	4,580	“
“ 24 “	43	40	00	42	55	00	2,700	“
“ 25 “	44	41	07	40	16	00	1,800	“
“ 26 “	33	08	00	16	10	00	2,950	no bottom.
Jan. 3, 1853	34	15	00	16	45	00	2,298	bottom.
“ 9 “	36	49	00	19	53	45	2,950	“
“ 9 “	36	59	00	19	58	00	2,500	“
“ 29 “	30	49	00	27	25	00	2,200	no bottom.
“ 30 “	30	45	00	27	31	00	2,480	bottom.
Feb. 3 “	27	05	00	28	20	26	1,700	“
“ 4 “	29	21	00	30	48	00	2,580	“
“ 5 “	31	17	00	33	08	00	2,400	“
“ 6 “	28	55	00	35	49	00	1,800	no bottom.
“ 8 “	29	13	30	41	20	50	2,270	bottom.
“ 9 “	31	16	00	43	28	00	2,089	“
“ 10 “	33	01	00	44	31	00	2.250	“
“ 11 “	32	29	00	47	02	00	1,950	no bottom.
“ 12 “	32	55	00	47	58	00	6,600	doubtful
“ 13 “	33	03	00	48	36	00	3,550	bottom.
“ 15 “	32	47	00	50	00	00	3.250	no bottom.
“ 20 “	28	59	00	57	51	00	1.380	bottom.
“ 22 “	28	20	00	59	44	00	2,900	doubtful.
“ 23 “	28	04	00	61	44	00	3,000	bottom.
“ 24 “	28	23	00	64	17	00	2,518	“
“ 25 “	27	42	36	66	11	15	1,000	no bottom.
“ 26 “	26	49	00	66	54	00	2,720	bottom.
“ 28 “	28	16	00	69	24	00	2,950	“

THE CHARTS.—A series of charts has been compiled from the observations made by the numerous intelligent navigators engaged in the scientific enterprise set on foot by Lieut. Maury. The pilot chart is derived from these results. The ocean is divided into square districts, of five degrees in length on each side. The winds for each month in each district are then collated, and it is hence easy, knowing the prevailing set of the winds for each month, to decide upon the probability of finding in each district a favorable wind. The problem then assimilates to that of the engineer who is called on to make detours to avoid mountain masses in fixing on the best line for a road on land. The head wind is like an opposing ridge, while the probability of obtaining favouring gales is analogous to the gentle slopes and easy grades to be discovered by the practised eye and experimental lines of the engineer. A wind rose is formed for each of the square districts, on which it is easy to read off the number of times in every month of the year a wind was observed in each one of the sixteen points into which the compass is divided. On the much travelled routes of navigation there has been no lack of observations; in other districts, as, for example, those between the routes around the southern capes of the two continents of Africa and South America, there are comparatively none.

The thermal charts are of no little scientific import, and from them we learn the office of the ocean in ameliorating the climates of the earth.

The chart of the trade-winds embodies the results of the observations made on these winds. One remarkable discovery has been made, and it is that the southeast trade region is wider than that of the northeastern trade in both oceans. The average line of division is about 9° north of the equator.

The whale chart, the object of which is to show the districts most favorable in each season for the capture of whales, is compiled on a principle not greatly differing from that of the chart of the winds. When we consider the numerous fleets engaged in this business, the value of having a systematic arrangement to enable the whaler to see at a glance where he will be most likely to encounter the objects of his search, must be at once seen and admitted. The following table exhibits the places at which most whales have been found, and may be considered the best whaling grounds:

SPERM WHALING GROUND ABOUT THE EQUATOR.

Months.	Latitude.		Longtitude.	
	°	°	°	°
May to Nov., inc.,	0	to 5N...	80	to 75 W.
Apr. to Dec., "	0	" 5 " ..	85	" 80 "
Dec. to July, "	5S.	" 5 " ..	90	" 85 "
Dec. to March, "	0	" 5 " ..	90	" 95 "
February	0	" 5 " ..	125	" 120 "
All the year	0	" 5S. ..	170	" 180 E.
All the year	0	" 10 " ..	85	" 80 W.
All the year	5N.	" 5 " ..	95	" 90 "
All the year	0	" 10 " ..	110	" 100 "
Aug. to Sept., inc.,	0	" 5 " ..	115	" 110 "
Nov. to Mar., "	0	" 5 " ..	120	" 115 "
Dec. to April, "	0	" 5 " ..	125	" 120 "
Jan. to June, "	0	" 5 " ..	130	" 125 "
Feb. to June, "	0	" 5 " ..	135	" 130 "
January..........	0	" 5 " ..	145	" 140 "
Dec. to Jan., ...	0	" 5 " ..	155	" 150 "
March to May....	0	" 5 " ..	160	" 155 "
Dec., Jan., Mar., June, and Nov.,	0	" 5 " ..	175	" 170 "
Dec., Jan., Feb. ...	10S.	" 15 " ..	80	" 75 "
July to Nov., inc.,	10	" 15 " ..	85	" 80 "
July to Feb., "	10	" 15 " ..	90	" 85 "
Nov. to June, "	10	" 15 " ..	85	" 80 "

NORTH PACIFIC.

Months.	Latitude.		Longtitude.	
May, June, July,	25	to 30N...	140	to 145 E.
May to Aug., inc.,	25	" 30 " ..	170	" 165W.
Apr. to Oct., "	30	" 35 " ..	145E	" 170 "
July to Aug., "	25	" 35 " ..	140	" 145 E.
June to Oct., "	30	" 35 " ..	150W.	170 W.

RIGHT WHALING GROUND, SOUTH PACIFIC.

Months.	Latitude.		Longitude.	
	°	°	°	°
Jan., Feb., Mar.,..	20	to 50S. ..	45	to 50 E.
Sep., Oct., Dec.....	30	" 40 " ..	55	" 60 "
Oct., Nov., Dec ,...	30	" 40 " ..	60	" 65 "
Oct., Nov., Dec.,...	30	" 40 " ..	65	" 80 "
Dec. and Jan......	35	" 45 " ..	90	" 95 "
Jul. to Nov., inc ...	35	" 40 " ..	115	" 120 "
Nov. and Dec......	35	" 45 " ..	120	" 130 "
January...........	45	" 50 " ..	160	" 170 "
Dec., Jan., Feb., March and Apr.,	40	" 50 " ..	170E	" 175W.

NORTH PACIFIC.

Months.	Latitude.		Longitude.	
April and May.....	40	to 45N. ..	145	to 150 E.
July to Oct., inc. ..	45	" 50 " ..	145	" 150 "
April and May	40	" 50 " ..	150	" 155 "
May to Sept., inc.,	45	" 55 " ..	155	" 165 "
May to Sept., "	45	" 55 " ..	165	" 170 "
May to Sept., "	50	" 55 " ..	160 W.	165W. and in Behring's Straits.
May to Sept., "	50	" 60 " ..	155 W.	130W.

SOUTH ATLANTIC.

Months.	Latitude.		Longitude.	
Aug. to Dec., inc.,	35	to 40S. ..	25	to 20W.
Aug. to Dec., "	35	" 40 " ..	20	" 5 "
Sept. to Dec., "	35	" 40 " ..	5W.	" 10 E.

The concluding portion of the work is devoted to an analysis of the various routes of most commerce over the ocean. Navigators will find here a guide which will prove of value in shortening passages, by gaining the benefit of the experience of those who have led the way. A vast variety of tables attest the industry of Lieut. Maury in collating the materials furnished him. We copy the following table, showing the average passage on the California route for each month, the place of crossing the equator in the Pacific, and the best performances of some famous clippers:

Month of Crossing the Equator in the Pacific.	From the U. S. to the Equator in the Pacific. Days.	Number of Passages from which Averages are determined.	Averages from the Equat'r to Californ. Days.	Number of Passages from which Averages are determined.	Place of Crossing the Equator in the Pacific. Between.	Average from U. S. to California. Days.	Average Passages of the whole month from U. S. Days.	Shortest Passage fr'm the U. S., for the month.
January	89	2	20	2	105 and 110	109	—	By the
	94	3	25.5	4	110 “ 115	*119	—	Sword Fish, 91 days.
	77	1	23	1	115 “ 120	100	112.5	
February	—	–	39	1	95 “ 100		—	
	120	4	30	5	105 “ 110	150	—	
	126	2	27	2	110 “ 115	153	—	
	89	1	18	1	115 “ 120	*107	144.7	Seaman, 107 days.
March	107	1	42	1	90 “ 95	149	—	
	112.5	2	28.5	3	100 “ 105	141	—	
	106	5	28	5	105 “ 110	134	—	
	115	5	28	6	110 “ 115	*132	—	Surprise, 97 days.
	104	4	28	5	115 “ 120	132	—	
	171	1	28	1	120 “ 125	199	141	
April	110	1	28.5	2	100 “ 105	138.5	—	
	124.5	2	33.5	4	105 “ 110	158	—	
	115	1	26	3	110 “ 115	141	—	Samuel Russel, 110
	100	3	26	3	115 “ 120	*126	—	[days.
May	140	1	38	1	90 “ 100	178	—	
	—	–	34	1	100 “ 105	—	—	
	124	2	34.4	4	105 “ 110	148.2	—	
	116	3	27.7	5	110 “ 115	140	—	
	106	4	27	4	115 “ 120	*133	142.6	Wisconsin, 124 days.
June	102.2	4	32.2	5	100 “ 105	134.5	—	
	120.5	4	38.4	12	105 “ 110	*157.5	—	Wild Pigeon, 107
	110.2	5	33	7	110 “ 115	142	—	[days.
	103	1	28	1	115 “ 120	131	—	
	129	1	39	1	120 “ 125	168	—	
	126	1	46	1	W. of 125	172	146.8	
July	103	3	37	4	100 and 105	131	—	
	108	4	29	7	105 “ 110	*134	—	Staffordsh., 101 days.
	119*5	2	30*5	5	110 “ 115	150	—	
	114	4	25	5	115 “ 120	139	—	
	104	1	30	1	120 “ 125	134	137	
August	91	1	29	2	100 “ 105	119	—	
	—	–	18	1	105 “ 110	—	—	
	120	5	32	7	110 “ 115	152	—	
	133	1	42	1	115 “ 120	175	—	
	71	1	19	1	120 “ 125	90	143	FlyingCloud, 90 days.
Septem.	180	1	39	1	95 “ 100	169	—	
	117*5	2	33	2	100 “ 105	150.5	—	
	141	1	25	2	105 “ 110	166	—	
	118	3	29	6	110 “ 115	*126.3	—	Witch of the Wave,
	—	–	33	1	115 “ 120	—	145	[115 days.
October	—	–	44	1	95 “ 100	—	—	
	90	2	26	2	100 “ 105	116	—	
	102	1	25.7	5	105 “ 110	125	—	
	99	7	25	7	110 “ 115	124	—	Sovereign of the
	99.5	2	25	2	115 “ 120	*124.5	134	[Seas, 103 days.
Novem.	—	–	33	1	90 “ 95	—	—	
	93	1	29	1	100 “ 105	122	—	
	102	1	23	4	105 “ 110	125	—	
	115.5	4	25.2	5	110 “ 115	*139.7	134.3	Sea Witch, 108 days.
Decem.	151	1	35	3	105 “ 110	184	—	
	88	1	15	2	115 “ 120	*103	142	Comet, 104 days.

We have endeavored to give a sketch of the important labors begun by Lieut. Maury; and we rejoice to learn, that at last they are appreciated by government, and approved by the mercantile world. The merchants of New-York and the merchants of Liverpool have united to do honor to the modest and laborious philosopher. The convention of navigators and meteorologists which he proposed has just taken place, and the plan he has advocated will be undoubtedly substantially adopted by that body. The influence of the various governments will be enlisted, and, under their recommendation, a body of material will be furnished for discussion, to the minds who will compare these individual contributions, and elicit the law which governs the course of the apparently wayward winds. From the chaos order will spring, and science, with slow endeavors, trace the works of that Eternal Wisdom, which in the beginning "set a compass upon the face of the deep."

Art. VI.—THE LAKE AND MISSISSIPPI VALLEYS.

THE garden of the North American continent lies along its longitudinal centre. As the gloomy forests which, but a few years since, lowered above its broad expanse, are cleared away by the hand of industry, the soil expresses its thankfulness for the sunlight let in upon it, by yielding such abundant crops of grain and of fruits, as might easily convince us that the corn-fields of the Nile had found more than a rival in the New World. The fame of its rich prairies has gone abroad, and from every part of the civilized world emigrants are pouring in, anxious to share in its abundant products, and to take a part in its unexampled prosperity.

Nature has not only given to it a prolific soil, but she has prepared for the immense commerce that such a country must invite, the best and most capacious of natural highways. A lake navigation unequalled in the world, either for its extent or for its freedom from obstructions, accommodates a considerable portion of it. The noblest of the earth's rivers runs through it, affording, upon its capacious bosom, abundant room for the whole carrying trade of the world.

Yet excellent as are these natural channels of trade, they are not superior to the adaptedness of this region for the construction of artificial channels. Railroads may be built all over it with almost unexampled cheapness, and wherever canals may be thought more profitable, it is rare to find impediments to their construction.

The portion of the United States embraced within this region is yet in its infancy. The sites of most of its principal towns were wildernesses within the life-time of persons now living. Its lakes were "desert wastes of water" within the recollection of those still young. It was but the other day when its inhabitants were compelled to import a considerable portion of its breadstuffs, and were, in a great measure, dependent upon older states for the ordinary comforts of life.

Yet though still in its infancy, it has already become a country of ten millions of inhabitants, producing yearly six hundred millions bushels of grain, and a million and a half bales of cotton. It not only now returns with usury the breadstuffs it imported but a few years ago, but its beef, its pork, its butter and cheese, its flax and hemp, its fruits and wine, are finding their way, in considerable quantities, into various parts of the world.

Look abroad upon this region; examine its soil, its varieties of climate, its immense capabilities for production, and its advantages for the exchange of its products, as well between its own inhabitants as with the rest of the world, and you will perceive that the commerce already grown up is but the faintest foreshadowing of that which is to follow. The country that now supports ten millions of people, is capable of supporting the whole present population of the globe. The territory that now produces six hundred millions bushels of grain, may, with proper cultivation, be easily made to produce ten thousand millions. However vast may ever be its population, it has still within itself an abundance of the most useful minerals—iron, coal, copper and lead, to supply their necessities; it can always be made to furnish them with their clothing, their sugars, their fruits in extensive variety, and, doubtless, also both their teas and coffee, as well as nearly all the other conveniences and luxuries of life.

Varied as are the productions of this region, but few of them can be profitably raised over a large extent of territory. The sugar-cane has its natural locality, and cannot be made to approach the region of the lakes. Wheat likes the long winters of the Northern States and of Canada, while cotton is as sensitive to the cold as the cane. The sweet and the Irish potatoes do not like the same neighborhood. The best fishing-grounds of the territory are located at one extreme, and its mineral wealth is scattered unequally over it. Its best pines, as well as its best oaks, are localized. In the exchange of these various articles will some day grow up a commerce, compared to which the foreign commerce of the country is now, and always will be, insignificant.

Contemporaneous with the infant growth of this commerce are starting up cities to act as its receiving and distributing points. Located in a country that from a wilderness has grown up like magic into a family of wealthy States, they, too, have had a growth equally magical. But as the commercial exchanges that are to give them their greatest impetus have but just begun, so also is their present prosperity but an inkling of their future greatness.

The growth of commerce in any country is more rapid than the increase of population. No man, perhaps, lives so much within his own resources as the settlers of a new country, who, from necessity, becomes a jack-at-all-trades, and subsists upon the few articles his little improvement produces. As the country becomes settled, a division of labor takes place, and the farmer exchanges the products of his fields for the clothing, which, before, himself had inconveniently manufactured. With a greater density of population comes a necessity for a larger proportionate use of vegetable food, for nature sets narrow limits to the population which a given extent of country may supply with animal food, but spreads out everywhere a soil whose vegetable resources seem constantly to increase with the increasing demands made upon them. Yet commerce is increased by this greater consumption of vegetable products, in proportion as vegetable is greater in variety than animal food.

Commercial exchanges increase rapidly also with the increase of wealth, for the real necessaries of life may be produced by industrious poverty almost anywhere, while wealth must always purchase a large share of its luxuries beyond the limit of its immediate neighborhood. And so it happens that the commerce that with a sparse and poor population was merely nominal, as the latter becomes more dense and wealthy, increases in a still more rapid ratio.

The South has been accustomed to look upon its cotton and sugar as its staple products; and so, to a considerable extent, they always will be. But when the Lake and the Mississippi valleys become more intimately united, there will be as many mouths in the Northern States and in Canada, to be fed with southern fruits and vegetables, as there are people now to be clothed with southern cotton. It must not be supposed when Cleveland, Toledo, and Chicago are forty hours distant from Mobile and New-Orleans, that their inhabitants will wait the slow opening of the northern spring before they will indulge in the vegetables and delicious fruits that load the tables in the Gulf cities. Nor at any season of the year will the South want for edibles of northern production, and least of all, for the refreshing ice that robs the enervating summer of half its languor.. As the food is vastly more expensive than the clothing, so is this commerce, of which we now see but the small beginnings, to be proportionately more important than that which supplies us with our cottons, our woollens, and our other dress goods.

Besides, while nature in a warm climate yields its largest return for agricultural labor, so that the Southern States will always be most eminently agricultural, so a colder climate is more naturally a manufacturing region, because of the greater cheapness of labor. Not indeed, that wages will be less, but that the amount accomplished by the laborer is in a great degree proportioned to the vigor imparted to his limbs by the atmosphere in which he works, and is sensibly diminished by the enervating effect of the southern sun. While, therefore, the greater proportion of the raw material that is to supply the food and clothing of these great internal valleys is to be grown south of the Ohio, an equal proportion of its manufacture will be north of that river.

It is idle to compare the growth of the towns that are favorably situated to be concentrating points for this great commerce, with that of those seaboard cities which depend mainly upon the comparatively insignificant foreign commerce for their sustenance. The world has never before seen cities situated in circumstances favoring so rapid and permanent a growth. The world has no other such valley as that of the Mississippi, extending through so many parallels of latitude, and through such a variety of animal, mineral, and vegetable productions. No other country has such capabilities of producing within itself almost every necessary, convenience and luxury of human life which the world affords. And, as a natural consequence of these advantages, no other country has ever had its capacity and its resources developed with the same rapidity as is now observed in this central basin of North America.

Art. VII.—RESOURCES AND PROGRESS OF PHILADELPHIA.

MR. TYSON'S LETTER TO MR. PETER.

No. IV.

Permit me, for an instant, to go back to the manufactures of Philadelphia, before resuming the subject of its commerce. The amount of capital employed in these factories, their magnificent annual results, the superiority of the fabrics, and the unexampled number and variety of the steam-engines in operation, do not comprise all that may fairly be said of the prospects of these establishments, nor of the degree of excellence which they are destined to attain. The manufacturing spirit so observable at the earliest period of colonial times, was fostered by the utilitarian principles of our forefathers. They taught, as a part of their religious system, the duty of *useful employment.* They enforced this precept with the emphatic authority of law, and confirmed it by adding the sanction of their own example. The English and German Friends inculcated the importance of *trades*. Penn recommended them to his children; and many respectable persons of his own sect, especially in Pennsylvania, carried the sentiment into practice. The manufacture of articles of domestic necessity became a favorite occupation with our people. To the diffusion of this practical taste may be ascribed the happy idea of those scientific associations, which united to form the American Philosophical Society in 1743, and the more recent establishment of the Franklin Institute. In the latter, the scientific principles of the mechanic arts are taught to multitudes of young men, by the ablest teachers.

American skill will moreover be largely aided and improved by *the Philadelphia Female School of Design*, lately begun under the auspices of the Institute, and now connected with it, in the full tide of success. It would be unjust, in referring to this beautiful appendage and valuable auxiliary of the *fine* as well as the *useful arts*, to omit a passing tribute of gratitude to the gifted and accomplished benefactress of her sex and country, to whom we are wholly indebted for its introduction. But I will not do further violence to her feelings or your own, than to observe that, by the aid of this school, the genius of the nation will have a new and rich field opened for its exercise. By means of the drawings and patterns so felicitously executed by its pupils, our country will be enabled to impress upon the products of her industry a character as national, as distinct, as original, and I have no doubt as tasteful, elegant, and varied, as the most celebrated specimens of France and England.

But considerable effect must be produced upon the personal characters of mechanics and manufacturers by the influence of the Girard College for Orphans; perhaps the wisest and most beneficent institution of the nineteenth century. After adequate mental training within its walls, the pupils are to be taught *manufactures, navigation*, or some other practical or *useful employment*. From the three hundred inmates now receiving its bounty, there will, in a few years, be a *thousand*, who, snatched by its protection, in early childhood, from the evils attendant on orphanage and penury, and instructed by its paternal discipline in youth and nonage, will form a class of candidates for the manual occupations of life, more numerous and better instructed than any age or country has ever incorporated with its society. These exposed classes, from which the almshouse and prison are supplied with victims, are made by the sagacity of the founder to give rank and elevation to the mechanic and artisan, and add new dignity and value to their social claims. Such are the elements at work in our midst, to push to their acme the highest efforts of American mind, in the useful departments of art and skill. Who can say, with such aids, what Philadelphia may not achieve as an industrial locality? In the possession of the materials of cheap manufacture, and cherishing a high standard of workmanship, what may she not accomplish with the proclivities of her people, assisted by training and enlightened by science?

But to proceed with the subject of foreign commerce. The mercantile marine of the port cannot be large, to sustain an importation of only twelve millions, and an exportation of less than five millions a year. Since the year 1846, the cash duties received at the Custom-house of Philadelphia, have stood as follow:—

For 1847...	$2,904,748 97	For 1849...	$2,714,965 24
" 1848...	2,762,093 11	" 1850...	3,361,112 18

There is every reason to believe that, for the present year, duties received at our custom-house will exceed *four millions of dollars*. For a long period anterior to the epoch of 1846, one solitary line of sailing packets to Liverpool graced the port of Philadelphia. These vessels sailed, at stated periods, once a month; and, though built in the most substantial, and equipped and furnished in the best manner, yet, without voluntary shipments of merchandise by their owners, they would have frequently departed and returned without a cargo. But our venerable townsman, Mr. Thomas P. Cope, being identified with the port as an importer of foreign merchandise before the year 1790, as a ship-owner since 1807, and having established, in conjunction with his sons, his unsurpassed line of packets in the year 1822, perhaps other feelings than those of mere pecuniary profits have influenced their continuance through all vicissitudes. It has survived the period when freights were in demand, and now finds itself in the society of three other packet lines to Liverpool, with business enough for all. These several lines of packets are composed of capacious and excellent ships, not only well filled with cargoes of merchandise, but, if I am correctly informed, *vessels* are in requisition rather than *freights*.

Within the period of five years, many noble merchantmen have been built at this port, and among them two for the old line of H. and A. Cope & Co., each of 1,700 tons burthen. Sailing vessels of the best description, and of a high tonnage, have been constructed and placed among the other lines, within the same period. Less than a year ago was commenced a line of steam propellers from Philadelphia to Liverpool, and as the vessels composing it have proved themselves unequalled for strength and speed, they have imparted increased activity to commerce, and diffused the most cheerful anticipations. Freights and passengers accumulate to the utmost capacity of these steamers. The packet ships to Bremen and New-Orleans, and the steamers to Charleston, Richmond, and New-York, with various transient vessels, make up the residue of that commercial marine, which is represented in the tabular statement which I have quoted, of the foreign and coastwise arrivals. In addition to these, a line of steam-vessels for the Boston trade is in preparation and nearly ready to sail; and an active movement is on foot, with encouraging prospects of success, to communicate more speedily and regularly with New-Orleans, by means of the same great staff of commercial intercourse.

In this enumeration of vessels constituting the mercantile navy of Philadelphia, we look in vain for voyagers to London, to France, or to China. The mercantile marine has certainly improved, as well as the exports and imports. But the time is not remote when from four to six East Indiamen were seen lying at our docks together. At that time a cargo from China could not find purchasers in New-York. Now, no China ships here are to be seen, and their cargoes are not offered for sale in Philadelphia. Nay, several tea houses exist among us, whose importations are made exclusively through the more favored port of our neighbor. But in continuation of this humiliating contrast, compare the exports from Philadelphia of 1796 with those of 1850. In the former year, the value of goods exported from Philadelphia was more than *seventeen millions and a half of dollars*, and in the latter was only *four and a half millions!* In 1796, our population was about *seventy thousand persons;* in 1850, it approached *half a million of inhabitants!*

In order to heighten this contrast, though it cannot give pleasure to a Philadelphian, it may be well to see how this pyramid, terminating at a point with us, has been inverted by our more fortunate rival. In 1796, the exports of New-York, when she contained about 55,000 inhabitants, amounted to about *twelve millions* of dollars; and in 1850, when her population bordered on *half a million*, her exports amounted to $52,712,789.

While thus far these figures are worthy of reliance, and present an inequality sufficiently remarkable, it may be proper to add that the statistics of the two cities, as presented by the writers of New-York, are generally wide of the mark, and transcend the bounds of truth and fairness. For example, a statistical table, prepared in New-York, professing to give the comparative population of the principal cities of the commercial world, assigns to Philadelphia, in 1840, a population of only 222,493. This would depress her in population below the cities of Lisbon and Dublin. The census of that year exhibited the number of 258,037 inhabitants, and entitled her to rank beside Liverpool, whose population she now exceeds. Another recent table of New-York statistics, in regard to trade and tonnage, shows a series of blunders, and the figures, as arrayed, are made to express a language approaching to mendacity itself. The same spirit of hyperbole on the one hand, and of depreciation, descending almost to disparagement, on the other, appears in most of the general and particular delineations of Pennsylvania, which emanate from that quarter. If, as the English writers assert, the disposition to magnify is an American trait, that tendency of the American character is as discernible among our brethren of New-York as anywhere upon this continent. They have certainly much to be proud of, in the luxurious splendor of their crowded and opulent city. Nevertheless, a fair examination would show—not merely a spirit of imitation on the part of New-York, in adopting the conveniences and elegancies of Philadelphia, but—that her commercial prosperity has been mainly owing to a temporary oversight, a voluntary dereliction of natural duty, on the part of Philadelphia. Is not all this apparent from the history of Pennsylvania, in comparison with New-York, from the earliest period, showing her capacity for larger shipments, and the susceptibilities of the port under a proper guardianship, with adequate cultivation? In 1697, Pennsylvania had been settled fifteen years, and New-York about half a century, and yet the value of the foreign trade of the latter was only £8,000 above the former. Take a subsequent period, say 1760, when Pennsylvania had let in the sun to her smiling fields, and you find that her exports and imports amount to £720,000, and New-York only to half a million! This superiority in her commerce was, with some variations, generally maintained during the colonial government. In 1774, it exceeded that of New-York by about £150,000; but the dangers of the revolution disturbed its current, and gave to New-York a temporary advantage. In 1790, the commerce of Philadelphia amounted to $7,953,418, and in 1796, to $17,523,866, being more than six millions in advance of New-York!

It is thus manifest that the foreign commerce of Philadelphia bears no just proportion to her ability to sustain it, nor to the requisitions of the internal trade. Such, on the contrary, is its capacity of enlargement, that it is augmented in magnitude and profit by the increase of the marine, or the multiplication of the means provided for conveyance. It results, then, that some defect must prevail in our policy, the removal of which is indispensable to the restoration of the proper measure of Philadelphia commerce. Let us see what this is, and whether the evil is adscititious and remediable, or intrinsic and unalterable.

In surveying the cause of a weakness in any particular part of a system, the cause of any partial and anomalous decay, where the organic functions are sound, and all the other members are vigorous and healthy, it is obvious that the complaint must arise from some temporary or casual agency, rather than from constitutional defect, or the existence of vital disease. We shall find, in the case before us, that what looks like a general distemperature, which stagnates the juices and disturbs the processes of nature, is nothing more than the want of local exercise of the part, the product of accident or mistake, the result of unnatural and voluntary inaction.

We have seen that the annual imports of Philadelphia do not much exceed twelve millions of dollars. Does this amount of foreign merchandise supply the consumption of Philadelphia—as well the quantity required for her own population, as the large demands of her numerous customers in the South and West? If twelve millions be wholly insufficient, whence is the immense residue derived, but through another port and in other bottoms than in those of Philadelphia—that is, through the port and in the bottoms of New-York? That this desertion of Philadelphia is *the true cause of the decline of her commerce* is evident; and a little reflection will convince us of the truth of another proposition, equally self-evident. These large importations through the port and in the vessels of New-York, *constitute the real source of the unparalleled prosperity of that city.*

In the year ending July 1, 1850, the value of foreign importations into the United States was one hundred and seventy-eight millions of dollars. When we consider the populousness and wealth of Pennsylvania, containing nearly two and a half millions of inhabitants, and the immense, wealthy, and populous regions beyond, which are either chiefly or wholly dependent upon her metropolis for their foreign supplies, is the estimate of *fifty millions of dollars*, as the aggregate value of foreign merchandise here used and distributed, more than her fair contingent? *As Philadelphia is admitted to be the great distributer and seller of merchandise to the Western and Southern country*, no one acquainted with the magnitude of the business, will deem the valuation of *fifty millions* other than inadequate. Of the one hundred and seventy-eight millions of our foreign imports, one hundred and eleven millions are introduced into the country through the port of New-York, and twelve millions through that of Philadelphia. It follows that less than *one-fourth* only of the commerce which belongs to this port is done by ourselves, and more than *three-fourths* are permitted to be done for us by strangers. In other words, *one-third of the entire commerce of New-York*, so justly her pride and boast, *is drawn from the custom of Philadelphia.* Take this one-third from New-York and give it to Philadelphia, together with its accompaniments and profits, and the two cities would stand in the positions which they should respectively occupy in regard to each other.

But we not only permit New-York to be the importer for

Philadelphia, and thus enable her to construct and sustain her noble and numerous ships, but we aid her by making direct contributions to her marine. Of the 34 vessels sailing between New-York and Canton, the interest of *more than one-sixth* of the whole is owned by citizens of Philadelphia. Thus Philadelphia supplies *one-sixth* of all the imports into New-York from China, without reaping a tittle of its benefits; and our merchants voluntarily import in her vessels, and through her port, the sum of *thirty-eight millions* annually.

Now, this state of things is not more humiliating than its mischiefs are extensive and deplorable. The expenses of breaking bulk and shipping the goods to Philadelphia, the profits on the cargoes, the commissions on the sales, the duties paid at the custom-house, are all so much grist to the mill, so much tribute paid into the coffers of New-York. But these vessels, thus laden with imports for the Philadelphia market, not only arrive at New-York, but *they carry away from New-York* rich cargoes in return. These exports it is which fill her rivers with crafts, burdened with the fruits of the field and the products of the factory, and which tax to their utmost capacity every avenue, by canal and railway, leading to New-York. Does not this subjection of our foreign commerce to the shipping of New-York abundantly explain the reason why so small a portion of the western produce which finds its way to the Atlantic is transmitted through our public works to Philadelphia? The law by which trade is governed, is that which the *market* commands. Where the highest prices are to be had, there, in despite of distance and difficulty, is the supply. In vain will closeness of neighborhood and facility of transit hold out their allurements, without that brisk and superior market which is excited by a lively and extensive foreign commerce. Philadelphia may build railways and excavate canals; she may open vast avenues to the furthest extremities of the West, the North, and the South; she may possess all the elements of a golden opulence in her noble State; yet, in the vicinity of such a rival as New-York, if she decline, or be not sedulous in fostering the opportunities of *the carrying trade*, all these advantages are valueless, every sign of prosperity is unreal, illusive, and shadowy. She will become effeminated by inactivity, and fall a suburban district, if not an unresisting prey to New-York. Though the most luscious fruit may hang from lofty boughs, and their bending garlands seductively wave in her view,—though her palsied hand may be stretched forth to grasp it, some fitful breeze will blow away the branches as fast as she approaches. But with a foreign commerce, commensurate in magnitude to the immensity of her resources, her natural and artificial highways will groan under the burdens of a trade hastening from the vast interior, and augmented from her own magnificent domains. "It will," to use the language of one of her most sagacious men,* "raise her as a city to the very pinnacle of commercial grandeur; to the very first rank among those which have distinguished themselves as conspicuous marts; to the size of London, Canton, Calcutta—nay, *beyond that of any emporium on the globe.*"

Is the prize worth contending for? Are ease and inactivity so desirable in themselves, that we should relinquish all other blessings for their enjoyment? Should the merchant of Philadelphia hesitate as to the line of his duty? For every importation he orders through another city, he inflicts a deep injury on his own, and does a real injury to himself. He undermines the fortunes of his own community, by giving the nourishment necessary to sustain her, to another, whose absorbing demands are sapping the foundations of her own fortunes. He contributes to his own impoverishment, in abstracting from his home those elements of life and growth, upon which all within the domestic borders depends for vitality and vigor. An opposite policy would be to all the interests of Pennsylvania what the dew and the light are to vegetation, aiding them to expand and flourish. It would act as a vent to that sluggish internal trade, which, by means of the Pennsylvania Rail-road and the other improvements of the State, we have been so anxious to attract to Philadelphia.

In proportion as the foreign commerce is neglected or diminishes, the domestic trade will disappear or decline, while in the same degree as the former is fostered and enlarged, the latter is encouraged and accumulates. Foreign commerce and internal trade must go hand in hand, or stop in company; being mutually dependent, they must coexist or die together. All that is wanted are the requisite energy and will of our own people, to break down all opposition to a career for Pennsylvania, as peerless and triumphant as the unapproachable superiority of her natural resources. With only reasonable *sea room*, with merely a *fair chance*, by means of the possession of her legitimate business,—of that trade which is properly and intrinsically her own—of that commerce which is necessary for the supply of her own wants and those of her customers—Philadelphia would, in a few years, be restored to her original state, to her former ascendency—THE METROPOLITAN EMPRESS OF THE WESTERN WORLD!

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* Samuel Breck, Esq.

Art. VIII.—MISSISSIPPI BONDS.

No. II.

In the June number of the Review was published a statement of the Planters' Bank bonds, issued by the State of Mississippi, and a desire expressed for a similar statement of the Union Bank bonds, issued by the same state. Stupendous works are contemplated, or in way of execution, throughout the South. Georgia is preparing to connect the Atlantic with the Gulf at Pensacola. New-Orleans has commenced its Opelousas Rail-road, which is destined to connect with the Pacific Ocean. The Mobile and Ohio Rail-road is also to connect with the Gulf of Mexico the vast Western States already connected with the net-work of the East; and so is the Great Northern Rail-road, now in process of execution from New-Orleans to the Mississippi State line. Texas, Mississippi, Arkansas and Missouri, have all joined in the great work; and last, though not least, we have the Isthmus of Tehuantepec, which, when opened by a plank or rail-road, will bring the two great oceans within twelve hours of each other—when a voyage from New-Orleans to San Francisco, by steamers, will be reduced to about ten days, and to China to forty days. The mind is struck with wonder, when gazing upon the map, at the immense territory embraced in the above works; at that wonderful net-work, which brings almost to our neighborhood the most distant points of the Union—which makes China as near to us as Liverpool, by sailing vessels—which, when completed, will do more for our Union than any compromise yet devised, by enabling our people, moving to and fro, to appreciate the absurdities of abolitionism with reality before them.

Who can foresee the treasures to be unfolded by the Opelousas Rail-road, as, proceeding in its western course, it throws open to emigration along its lines empires of virgin lands, only awaiting the hand of man to produce all the fruits of the earth? Who can set bounds to the mineral wealth to be disclosed by the iron road, through, as yet, unexplored New-Mexico?

New-Mexico, a century ago, was considered by Spain as the richest portion of her American domains, but she took espepecial care to conceal it from the world. It may be here of interest to give a short extract, from a letter written by the author of this paper, in the city of Mexico, in March, 1852:

"Sometime about the close of the last century, the king of Spain ordered all the documents and papers relative to this part of the world to be collected from the different archives of his government, and arranged, with a view to the general history, 'de la America Septentrionale.' This great work was commenced by Don Matias, Don Bernardo de Galvez, and Don Manuel Flores, and completed through the exertions of his excellency, Don Juan Vicenti Huemes y Horcasitas, and the enlightened patronage of the viceroy, 'el Señor Conde de Revilla Gigedo,' in 1792. This collection, arranged, classed, and put up together in well-bound volumes, in the 'Convento Grande de N. S. P. S. Francisco de Mexico,' comprised 32 folio volumes of some 500 to 600 pages each, of which 31 volumes are yet here, each province under its proper head. The first volume, it appears, has been lost or destroyed in one of the many revolutions which, from the commencement of this century, have been distracting this devoted country, and which may sooner or later cause the destruction of the whole work. These 32 volumes are divided into two classes: 1st. Comprising the first 11 volumes, containing copies of manuscripts enumerated by the king of Spain in a royal ordinance, bearing date 21st of February, 1790. The 2d. Comprising 21 volumes, containing, in accordance with the same royal ordinance, 'all manuscripts and documents tending to give a true history of the ântiquities, geography, government, civil and ecclesiastical, of America.' These are the words of the royal ordinance: 'Se copien y remitan, los manuscritos y documentos que se hallaran conducentes á ilustrar las antiguidades, la geògrafia, y la historia civil y eclesiastica é natural de America. (Here follows an analytical index of each volume.)

"Vol. 2. Contains a highly interesting account of New-Mexico.

"Vol. 3, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29 and 30, each under its proper title, relate to Sinola, Sonora, Nueva-Biscaya, the two Californias, Cohahuila, Texas, Gulf of Mexico, with statistics, maps, reports on mines, gold dust, agriculture, rivers, &c.

"Vol. 2. 2d part, contains a very interesting manuscript, entitled 'Relaciones de todas las cosas que en el Nueva-Mexico se han visto y sabido asi por mar como por tierra, desde el año 1538 hasta el de 1626. Por el Padre Geronimo Salmeron,'" &c.

After expatiating upon the extraordinary wealth of New-Mexico, the Padre, f. 40–verso, proceeds thus:—

> "Todas estas noticias de las grandes riquezas del Neuva-Mexico, y de la tierra en dentro, nò las han ignorado los Espánoles del Nuevo-Mexico, sino que no las merecen gozar, por los secretos juicios de Dios que nosotros no podemos corresponder, donde se vee cumplida la profecia de S. F. Diego de Mercado, Religioso de esta serafica religion, hijo de la Provincia de Ste. Evangelo, el qual viendo pasar, por el Pueblo de Tala, la tropa de gente quando Don Juan de Oñate entrò à poblar en Nueva-Mexico, dijo; *Por vida de Fr. Diego (que este era su juramento) que tiene Dios en aguellas*

partes remotas del Nueva-Mexico, grandes riquezas, mas por vida de Fr. Diego, que no las han de gozar, los presentes Pobladores, que no las guarda Dios para ellos ; y asi a side pues todas los primeros han perecido sin gozarlas, y con gran dolor, por que siempre vinieren con estos deseos, y ancias deriquezas, que es el fin à que allà entraron à poblar, y gastaron sus Haciendas—Dios, nuestro señor, que es el sabedor de todas las cosas, sabe el quando, y el como se han de manifestar estas riquezas à los hombres, para que las gozan, que à el solo es dado de saberlo, que asi nos lo enseña diciendo : *non est vestrum—non est tempora,*" &c.

Which may be translated as follows:—

"All these accounts of the wonderful wealth of New-Mexico and of its interior provinces, were not unknown to the Spaniards of those countries; but it was not the will of God, whose decrees are inscrutable, that they should enjoy them; and thus the prophecy of St. Fr. Diego de Mercado, a priest of our seraphic religion, native of San Evangelo, finds itself realized. On seeing the men headed by Don Juan de Oñate passing through Tala, to settle New-Mexico, he exclaimed,—"*By the life of Fr. Diego, (as he was wont to swear,) God has, in these remote parts of New-Mexico, placed great riches; but, by the life of Fr. Diego, the present people shall not enjoy them. God does not hold them for them.* And so it has come to pass; for all the first pioneers perished without enjoying them, and in great pain, coming out as they did, with the thirst of wealth, with all its desires and anguish, and losing their all. God, our Lord, who alone knows all things, alone knows when and how this wealth is to be discovered to men, that they may enjoy it; and so he has said,—*non est vestrum—non est tempora.*"

But to return to our subject; that these more than Roman works will be accomplished, sooner or later, no American heart can doubt. Cotton, the monopoly of the South, has built power for England this half century;—cotton, the great power of present days, not next even to gold, will build the great rail-roads of its own great South, even if left to herself! In 1787, the whole exports of Great Britain only amounted to £16,870,114, or, in round numbers, $75,000,000. Our present crop of cotton will not fall far short of $144,000,000. In 1849 a crop of 2,700,000 bales brought down prices to 4½ and 5 cents. With a crop of 3,200,000 bales, prices have been sustained throughout the season at an average of 10 cents! What prospects before us! What wealth must be accumulating in our South! And then every mile of the rail-roads under execution will be made productive as they open. Still it would be comparatively slow work, if we were restricted to our own immediate resources. To advance rapidly, these resources should be anticipated, and credit resorted to. How does the credit of the slave states stand with foreign capitalists? There can be no doubt that the whole South has been made to bear all the discredit involved in the charge of repudiation. Up to that time, Louisiana had stood pre-eminent for her public faith and credit: the state bonds issued in favor of the Union Bank, amounting to $7,000,000, and bearing 5 per cent. interest, were promptly taken in 1832, by American and London capitalists, at a premium of 6¼ per cent

The bonds issued in favor of the Citizens' Bank of Louisiana, also bearing 5 per cent. interest, were taken by Holland in 1836, '37, '38, and '40, at an average of 3 per cent. premium, to the amount of nearly $8,000,000. It is worthy of remark, that until the "repudiation" southern funds remained firm in Europe, despite the great commercial revulsion of 1837; for so late as June, 1841, a conditional sale for $1,000,000 of the Citizens' Bank bonds was made to Messrs. Hope & Co., of Amsterdam, at one per cent. premium. That the suicidal act of Mississippi killed the credit of the slave states in Europe does not admit of doubt; and what has been the effect? Whilst the East has been borrowing from Europe, since the eventful times of 1837 and 1843, hundreds of millions of dollars, for its great internal works, at fair rates, the South has been forced into inaction and liquidation by the suspicion of capitalists, here and abroad, though wielding the greatest power on earth—cotton! See how the public funds of Alabama, although ever true to her faith, have been dragging all along in European markets, whilst Massachusetts and New-York have been finding eager lenders for schemes of all sorts. See our own Louisiana redeeming honorably, by anticipation and otherwise, nearly fourteen millions of her public debt in eight years—say from 1844 to 1852—without producing any perceivable effect upon European capitalists. See our own noble city, issuing out, by a bold measure, from a state of inertness and of extreme confusion, to a state of vigorous health, its public debt secured by taxation and mortgage on the real estate of the city; and see the luke-warmness of the London market for these funds.

Art. IX.—AGRICULTURE.

AGRICULTURAL CONDITION OF JAMAICA; REPORT OF THE JAMAICA HOUSE OF ASSEMBLY—GRAPE CULTURE IN THE UNITED STATES—GUANO; DISCOVERY OF A NEW AND IMMENSE DEPOSIT OF GUANO—SUGAR PLANTATIONS IN THE SANDWICH ISLANDS—PARAGUAY COTTON.

THE agricultural condition of Jamaica is a subject which exhibits, in a striking manner, the immense mischief and ruin that has often attended the practical workings of a species of pseudo-philanthropy, such as now prevails in England, France, and in the northern States of this Union. This pseudo-philanthropy has absolutely ruined the French and English West Indies, so far as all successful agriculture is concerned, as may be seen by a single glance at Jamaica, St. Domingo, and the islands belonging to the French. To show in a nut-shell the blessings that British abolitionism has lavished on Jamaica, one of the gardens of the world, we invite the attention of our readers to the following returns of the House of Assembly of Jamaica, dated January 27, 1853, of all properties in the island of Jamaica upon which cultivation has been wholly or partially abandoned since the 1st day of January, 1852:

	Sugar Estates.		Coffee Properties.		Pens or Country Seats.		
	Totally aban'd.	Partial. aban'd.	Totally aban'd.	Partial. aban'd.	Totally aban'd.	Partial. aban'd.	Number of Acres.
St. Catharine	2	—	—	—	3	—	4,105
St. John	5	—	1	—	5	—	17,025
St. Dorothy	1	2	1	—	1	1	5,578
St. Thomas in the Vale	9	4	25	3	—	—	26,420
Vere	5	—	—	—	—	—	9,273
Clarendon	10	—	1	—	2	—	24,576
Manchester	—	—	8	2	—	—	6,673
St. Mary	8	7	—	—	—	—	17,846
St. Ann	8	1	19	18	2	—	29,367
Port Royal	1	—	2	3	—	—	2,956
St. David	6	1	10	4	4	—	16,005
St. Andrew,	4	7	3	6	—	—	15,106
St. Thomas in the East	18	9	3	1	—	—	37,935
Portand	3	8	—	—	—	—	15,225
St. George	2	8	12	10	3	5	37,063
Metcalfe	2	2	6	13	—	—	15,248
St. Elizabeth	4	1	5	6	10	16	43,633
Westmoreland	9	5	—	—	—	—	18,510
Hanover	13	5	—	—	—	—	18,149
St. James	7	5	—	—	—	—	11,480
Trelawny	11	6	—	—	—	—	18,984
Total	128	71	96	66	30	22	391,187

From this it will be seen, that in the short space of one year, nearly *four hundred thousand* square acres, or more than *six hundred* square miles, of the finest land on the earth's surface, in whole or in part, has been abandoned, and is now running to weeds! And this is the process which has been going on ever since the passage of the Emancipation Bill.

And all this abandonment, poverty, and ruin, is for what? To enable a few crazy fanatics of England to carry out a theory—a mere theory, begotten by ignorance and fostered by fanaticism. England has ever had an immense amount of philanthropy and of the milk of human kindness to lavish upon the negroes of America; while millions of her own white subjects are immersed in a system of servitude and starvation in "happy England"—saying nothing of the oppression and slavery of millions of British subjects in England's East India possessions. If English men and English women would first exhaust a little of their milk of human kindness upon the millions of their miserable, half-starved, and over-tasked brethren at home, they might then, with some show of consistency, turn their eyes abroad.

But England begins to be aroused to a sense of her folly. A northern contemporary* very justly observes, that the British government have been for some time in great perplexity on the question, what they shall do with the island of Jamaica—once the Queen of the British Antilles, but now bankrupt and ruined —and, in fact, good for nothing? To copy the language of the present Governor, Sir Charles Grey—" The fertility of its soil, and fitness for both tillage and pasturage, the richness and variety of its vegetable products, the alternations of mountain and valley, the numerous hot springs and medical waters, the known existence of various and valuable minerals, the timber and ornamental woods of its forests, the abundance and variety of fish on its coasts and neighboring reefs, indicate peculiar facilities for the promotion of the future welfare and prosperity of its inhabitants, and warrant the hope that, low as it has now fallen, it will not be permitted to relapse into utter barbarism." Nevertheless everything indicates, and the English themselves with great reluctance admit the fact, that such must be the fate of this beautiful and fertile island. It has become already what may be called a " model abolitionist establishment." The slaves were set free before they were qualified to take care of themselves, and the consequence is, that while men are plenty, there is nobody to do work. The land is capable of producing, in abundance, sugar, coffee, cotton, fustic, logwood, mahogany, ginger, sarsaparilla, beeswax and honey; also the pimento spice, of which nature has assigned to it a monopoly. It possesses great facilities for rearing horses, cattle, sheep, pigs, &c., and its copper mines contain rich deposits. It contains within itself the elements of unlimited prosperity, but is so completely fallen away from its former prosperous condition as to be in a state of practical bankruptcy.

The ruin and desolation of the island involves both land-holders, employers, and negroes. The latter are just what negroes have ever shown themselves to be, when without a master to look after and control them—a miserable and thriftless race.

From papers recently laid before the British Parliament, it appears that since the emancipation of the slaves, more than six hundred estates in the island have been abandoned. These plantations once gave occupation to upwards of 50,000 laborers. All the expedients that have been employed by the local government to arrest the ruin of the island have proved unavailing, and the inhabitants are now beseeching Parliament to do something for their relief. But what can Parliament do for a territory which is ruined for want of cultivation, and yet is full of a population that will not work? All the sensible portion of the British people confess that the emancipation of the West India negroes was a most thoughtless and inconsiderate act—a "tremendous mistake." But there are some among them who refuse to believe that any evil can possibly follow the "immediate and utter abolition of slavery." Such persons ascribe the misfortunes of Jamaica to the repeal of the corn laws and other measures of that character; but they are not fond of being asked *how* these things can prevent men from digging the ground. We have not heard of any project in contemplation by the home government of Great Britain for the rescue of this once valuable colony, though the subject is contemplated with a deep and mournful interest by all who take pride in Britain's supremacy.

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* The Boston Courier.

Instead of emancipation having been a blessing to the negro in Jamaica, it has been the greatest curse that ever fell upon them. While under their old masters, they had enough to eat, drink, and wear, and when sick were well attended. But now, what a change: they wander over the island half-fed, half-clothed, and more like savages, than any other race of beings living within the limits of the civilized world. And in addition to the general indolence and poverty into which they have sunk since their emancipation, must be added the decline of the Christian religion among them. It is stated that they are fast relapsing into their old superstitions of Fetichism and Obeah worship, which they brought with them from Africa, and that they are now seen paying their devotions to snakes, toads, and old ragged puppets. We give these statements as we find them in English publications. They may or may not be colored higher than the truth; but of the general fact that the blacks have declined to a most deplorable and ruinous extent into sloth and ignorance, there can be no dispute.

It would be to no purpose to ask the leaders of the anti-slavery party to think of these things. Men who make a *trade* of philanthropy will, of course, shut their eyes to such disagreeable facts. But to really honest men of that party, we may put the question, whether they quite understand what they are about in calling for the "immediate and ultra abolition of slavery."

As the subject of abolitionism has been discussed *ad nauseam*, we cannot think of dwelling upon it any longer.

The subject of grape culture is becoming a very important one in agriculture, and is engaging, more and more, the attention of agriculturists in many parts of the country. Mr. Cist, in a late number of his advertiser, gives the following interesting account of the present and prospective condition of grape culture and wine-making in Cincinnati and the vicinity. He says:

"I have recently visited the wine-cellars of Messrs. Longworth and Zimmerman, on Sycamore street. Mr. Zimmerman, the active partner, with his two sons, have been engaged in Europe for years in the manufacture of wine, and considers the Catawba a finer basis for first-rate wine than any in Germany or France. The drawing off and properly ripening wine they consider of more importance to the development of a fine article, than the original manufacture.

"The wine cellars of this establishment are 105 feet in length, an average of 35 in width, and 18 in height. Each season's wine is kept by itself, in casks of 2,000 to 2,500 gallons capacity, and none of our native wine is bottled in this establishment until it has been four years in casks. Thus, the wine bottled this season is the vintage of 1848, as that of next year will be the vintage of 1849. In this way the entire sediment, precipitated by successive fermentation, is retained within the cask.

"Messrs. Zimmerman will put up this season 30,000 bottles; in 1853, 50,000; and in 1855, 100,000. What will be done beyond that period, must depend on the yield of the grape crop in 1852, and later seasons. All this is Catawba wine, termed Still, in distinction from Sparkling Catawba.

"Mr. Longworth is engaged in the manufacture of Sparkling Catawba, at his wine cellars on Butler-street, off Broadway. He made, in 1850, 50,000 bottles; in 1851, 75,000, and this year he will put up 105,000 bottles. Sparkling Catawba requires fifteen to twenty months for ripening before being ready for market. Mr. L. has also dry and sweet wines—the first of the Catawba, and the other from the Isabella grape.

"Messrs. R. Buchanan, Corneau & Sons, G. P. Bogen, Rehfuss, Yeatman, Miller, and others, are also extensively engaged in the manufacture of Catawba wine. All these persons label their wines. The aggregate annual manufacture of first-rate wine may be put down at 150,000 bottles Still, and 180,000 Sparkling Catawba.

"Probably 30,000 bottles Still Catawba wine is made, sold and drank in this vicinity by Germans, mostly the product of small vineyards. This is unbranded, and of various kinds—the greater part of inferior quality. But whatever may be the quality of our native wines, they are all pure: that is, from anything else than the juice of the grape. One or two manufacturers make sweet wines, to a small extent, acknowledged to be fictitious.

"The supply of native wines, greatly as it is on the increase, hardly keeps up with the increasing demand. All the wine older than five years, of Catawba, is out of market, and the Sparkling, although not requiring such a large lapse of time to fit it for use, is taken off as fast as it can be made for market.

"There are about 1,200 acres of grapes in cultivation in the vicinity of this city. Every year adds to the quantity of bearing vines, and to the number of persons engaging in the business."

The country adjacent to Cincinnati has about 1,500 acres of land in cultivation and bearing vines; other places in the States of Ohio, Indiana and Kentucky, about 500; Missouri and Illinois, 200; together, 2,300 acres. The average crop of an acre is 200 gallons of wine; amounting therefore, in the aggregate, to 440,000 gallons annually, which sells readily at one dollar per gallon.

In 1840, the total wine crop of this country was only 124,000 gallons. In 1850 it was 221,249 gallons; being an increase of almost a hundred per cent. in ten years. The amount imported last year was 6,160,000 gallons—an amount which our country will be able to supply for its own consumption in sixty years, even at the present rate of increase.

Our difficulties with Peru, in regard to the Guano trade, arose mainly from the fact that Peru supposed she had a perfect monopoly of the trade, and that guano was an article which no other country or place could supply. This happy dream of the Peruvians is about to be sadly interrupted, by the discovery of an immense deposit of guano that has lately been made in the Indian Ocean, between Mauritius and Calcutta. It has been analyzed by Professor Anderson, of Glasgow, and is now also in the hands of Professor Way, of London, for analysis. Four kinds of it have been taken to England, two of which are of superior quality, resembling the guano of Saldanha Bay; the other two are comparatively inferior.

The discoverer relates that, being becalmed off an island, he sent his boats ashore for water. They returned without it, but told what they had found. The captain visited it himself; and having made several voyages for guano to Ichaboe, he at once pronounced the substance with which the island is covered to be guano. Having traversed the island in various directions, he found guano everywhere; its greatest depth, however, in the caverns and crevices of the rock. He secured samples and brought them home. The samples having been taken from near the surface, the quality is supposed to be inferior to what may be found beneath, as it is injured by the action of the weather. The deposit is reported to be immense, the island being twenty miles long by seven broad, and thus forty times as large as Ichaboe. There are no strong ocean currents near the island, and it is said that convenient loading stages can be erected with great facility, in the creeks and bays along its coasts. Steps are being taken to make the guano available to the British farmer.

This discovery shows what may be reasonably anticipated from a search in other quarters, and especially off the rainless coast of Peru. This is the true way to break down the monopoly of Peru, and to secure for the agriculturists abundant and cheap supplies of guano.

Many of our readers have probably heard something of the sugar plantations of the Sandwich Islands. A late number of the Polynesian furnishes us with the following statistics, in regard to the extent of the cultivation of sugar of those islands:

No. of Acres Cultivated.	1852.	1853.
At Lihue	200	580
Koloa	240	650
Honolula, Maui	250	300
Makawno "	325	500
Hana "	45	130
Waimea, Hawaii	50	50
Hilo "	540	540
Total Acres	1650	2750

Taking the average yield at one ton, or 2,000 lbs. per year, we have, for this year's crop, 3,300,000 lbs., and for that of 1853, 5,480,000 lbs. At 5 cwts. per lb., the crop of 1852 will be worth $165,000, and that of 1853, $274,000.

An English journal, the *Manchester Guardian*, of the 27th of July, has a notice of the indigenous cotton of Paraguay. We saw, yesterday, says the *Guardian*, at the office of the Manchester Commercial Association, a sample of 269 bags of native Paraguay cotton, gathered in a wild state, and recently arrived in Liverpool from Monte Video. It is not cleaned, but has a long staple, like Pernambuco cotton, and is fine and strong in quality. Some parties—authorities as to the value of cotton—estimate it as worth 10d. to 12d. per lb.; others are inclined to rate it at a rather lower figure. But there can be no question that it is good, serviceable cotton, and that if it could be imported in a clean state and in good condition, it would soon be extensively used. It is reported that large quantities of this cotton grow wild in the country, far inland, but with good river communication. As Mr. Drabble, a mercantile gentleman who takes a strong interest in the culture of cotton, and who, through the Manchester Commercial Association, was furnished by the Earl of Clarendon with letters of introduction and recommendation to all her Majesty's consuls throughout the countries watered by, or bordering upon the river Plate, had arrived out at Monte Video, and would shortly commence a tour of observation throughout Paraguay, &c., we may shortly expect to learn something more definite as to quantities of this cotton growing wild, and the practicability of having it cleaned and shipped. It is scarcely necessary to add, that, in all tropical countries where the plant is found indigenous, is is perennial; and this adds considerably to the agricultural and mercantile value of the natural product.

Art. X.—COMMERCIAL AND FINANCIAL.

EXPORTS AND IMPORTS—SPECIE OPERATIONS IN NEW-YORK—INCREASE OF DUTIES COLLECTED—SURPLUS REVENUE—COFFEE TRADE AND PRODUCTION—GRAIN TRADE—EUROPEAN CROPS.

THE opening of the new fiscal year shows, that the astonishing progress manifested in our foreign trade since the first of January, 1853, is still exhibited. Taking the port of New-York as a tolerably good index of the state of the foreign commerce of the country, we have only to present its custom-house returns in order to convey a fair idea of the progress of that commerce. For the month of July, the first of the fiscal year of 1854, its trade far exceeded that of the same month of any previous year.

EXPORTS FROM THE PORT OF NEW-YORK FOR JULY.

	Specie.	Foreign Goods.		Domestic.	Total.
		Free.	Dutiable.		
1846................	$80,463	$40,414	$122,403	$2,876,015	$3,119,295
1847................	27,670	42,735	79,255	6,687,681	6,837,341
1848................	744,983	14,190	89,289	2,189,125	3,037,587
1849................	138,352	23,508	396,471	2,953,622	3,511,953
1850................	1,578,080	17,562	413,071	3,574,260	5.523,574
1851................	6,604,170	2,311	284,394	3,188,027	9,478,905
1852................	2,971,499	20,750	325,752	2,965,542	6,288,543
1853................	3,924,612	313,192	447,201	4,882,957	9,567,962

Including ingots, the exports have been larger in amount than they have ever been before, and the famine year alone shows a higher range for domestic exports in July. As compared with last year the amount is nearly two millions greater. Of this amount flour reaches $915,000, against $475,000 in the same month last year. Of cotton, $800,000, against $300,000 same month last year, and the general movement is in a similar ratio.

The imports and exports for the seven months since January 1st have been as follows:

FOREIGN IMPORTS AND EXPORTS AT NEW-YORK FOR SEVEN MONTHS, ENDING JULY 31ST.

Imports.	1852.	1853.	*Exports.*	1852.	1853.
Ent. for consump.....	$58,498,029	$93,558,807	Domestic produce...	$25,111,363	$30,305,247
Ent. for wareh's'ng...	5,451,668	13,587.589	Foreign merchandise (free)	541,978	1,010,669
Free goods...........	8,259,939	9,669,118	Foreign (Dutiable)..	2,745,307	2,488,181
Specie.......	2,028,248	1,099,516	Specie..............	15,595,508	12,579,594
Total imports........	$74,237,884	117,915,030	Total exports.......	$43,994,156	$46,383,691*
Withdrawn from warehouse.........	$9,622,577	8,227,102			
Duties...............	$17,491,100	$25,807,436			

The specie operations of the port of New-York, from January to June, of the present year were as follows:

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* United States' Economist, for August, 1853.—During the month of August, according to the "Economist," the imports for the port of New-York somewhat declined, there being a decrease of $500,000, as compared with August, 1852. There has also been, during the same month, a greater quantity of goods entered there for warehousing than last year.

	1852.	1853.
Imports	$2,028,248	$1,099,516
Gold coinage at Mint	28,364,491	35,875,476
Supply	$30,392,739	$36,974,992
Exports	15,595,508	12,579,594
Excess supply	$14,797,231	$24,395,398

This has been the apparent operation as far as New-York is concerned. Of the $24,395,308 accumulated since January, the sub-treasury has $6,000,000; that is, it held $2,554,394 January 1, and now holds $8,474,931. The banks of New-York held January 1, $10,342,450, and June 11, $12,174,509, an increase of $1,800,000; but from June 11 to August, the receipts of gold were $7,750,000, and the exports $5,400,000, leaving $2,350,000 increase, of which 500,000 were in the sub-treasury vaults, and might therefore have raised the bank basis to $14,000,000. These two sums would make $10,000,000 of the receipts of gold gone into bank and government vaults, leaving $14,000,000 apparently distributed into the interior of the country, affording abundant proof that, notwithstanding the large imports and sales of goods, the exchanges are in favor of the interior, as well from sales of produce as rail-road expenditure. It is also the case that some California ingots have been received and exported without appearing in the receipts; hence the accumulation is larger than appears in the figures.

This extraordinary condition of our foreign trade, is not, as we have before observed, the result of an inflated condition of the currency. "If the imports have been large, it is because the exports have also been large, and payment must be received by a gold-producing and exporting country in the shape of goods. The rise in prices which has actually taken place, it would seem, has prevailed as well abroad as here, growing out of the general influence of a larger supply of precious metals to the world's commerce."

The actual effect of this enormous increase of imports on the amount of duties collected is so great, that it has enabled the government to discharge the public debts as they accrued, and to leave $22,000,000 in the treasury on the 31st of July, 1853. So far from expecting this, the treasurer of the late administration, Mr. Corwin, anticipated a deficiency, and actually asked for a loan of $16,000,000 to enable him to meet the current expenses of the government.

We have shown in the table given above, the great increase of exports for July last at the port of New-York. The following are the *imports* for the same month:

IMPORTS—PORT OF NEW-YORK.

	Entered for Consumption. Dry Goods.	Other.	Warehoused.	Free.	Specie.	Total.
1851........	8,152,574	4,222,127	1,022,725	1,027,481	81,143	14,506,050
1852........	6,459,592	4,994,525	423,919	915,154	150.067	12,942,251
1853........	10,443,397	6,282,246	2,080,908	1,072,502	199,454	20,078,507

The returns from Philadelphia, Baltimore, Boston, Charleston, and other ports, also show, as well as New-York, the same remarkable increase in exportations.

The coffee trade continues to exhibit activity, the increase in importations being very considerably above what they were at this time last year. From the coffee circular of Andrews and Morris, for Philadelphia, the imports up to the 1st of August, since January 1, 1853, were as follows:—Rio, 84,629 bags; other descriptions, 34,529 bags; total, 119,158 bags; same period last year, direct, 90,046 bags; increase of imports this year, direct, 29,112 bags.

For Baltimore, the statement up to August 1, is as follows: Imports of coffee since January 1, 1853, of Rio, 130,112; do. of other descriptions, 12,025 bags; total, 142,137 bags; ditto same period last year, of Rio, 108,186 bags; ditto other descriptions, 19,588 bags; total, 127,774 bags; increase of importation this year, 14,363.

The production of coffee, throughout the whole coffee-world, is on the decline. In Cuba, where the crop was once so flourishing, it is now reduced almost to nothing, in comparison. The abolition of slavery in the British West Indies has nearly abolished it there. In St. Domingo the decline is immense. In Java the production has fallen from 150,000,000 lbs. in 1848, to about 110,000,000 lbs. In Brazil the stoppage of the slave-trade has greatly checked the production. In Ceylon, from a want of government protection, as is alleged, the coffee product has fallen off several millions of pounds, and large capitals have been lost and estates abandoned. Laguayra, too, has suffered a decline in coffee. The entire production of coffee is as follows:

PRODUCTION OF COFFEE, 1848 AND 1853.

	1848.	1853.	
Brazil,.............	270,000,000 lbs	.....280,000,000 lbs.,	or 1,750,000 bags.
Java,.............	150,000,000	110,000,000	or 800,000 piculs.
St. Domingo.......	40,000,000	 45,000,000	
Cuba and Porto Rico	40,000,000	 30,000,000	
British West Indies	10,000,000	 5,000,000	
French and Dutch West Indies......	5,000,000	 3,000,000	
Sumatra...........	10,000,000	 15,000,000	
Mocha, &c.........	5,000,000	 5,000,000	
Manilla............	3,000,000	 2,000,000	
Ceylon............	25,000,000	 30,000,000	
Laguayra..	30,000 000	 25,000,000	
Costa Rica........	5,900,000	 5,000,000	
Total production,	590,900,000	556,000,000	

This decline has been mainly caused by its having ceased to be a profitable crop in most places of production, and by the short crops in Brazil, Java and Ceylon. Should prices advance, some may expect a corresponding increase of production, as of sugar or cotton; but when it is considered that it requires ten years at least to get a new coffee estate into full bearing, and that labor, the chief capital employed, is from 150 to 200 per cent. higher in Brazil than it has been, it cannot be looked for to any great extent, certainly not equal to the average increase of consumption the past twenty-five years.

The consumption of coffee has rapidly increased the past twenty-five years, from its low price, facilities of transportation, and ability of the masses to purchase what was formerly considered a luxury, so that it has now become a necessary of life. The greatest increase has been in the United States, averaging seven and a half per cent. per annum; in Europe it has been two and a half per cent., or for the world four per cent. per annum.

The following estimate of consumption is the average of various sources, and is believed to be as near the truth as can be ascertained, for 1852: United States and British America, 200,000,000 lbs.; German Zolverein, 100,000,000 lbs.; Austria and other German States, 65,000,000 lbs.; Holland and Belgium, 80,000,000 lbs.; France, Switzerland, and South of Europe, 110,000,000 lbs.; Great Britain, 35,000,000 lbs.; Denmark, Sweden and Norway, 25,000,000 lbs.; Russian Dominions, 15,000,000 lbs.; Cape of Good Hope and Australia, 10,000,000 lbs.—Total consumption in 1852, 640,000,000 lbs.*

We have not space to include the annual commerce of New-Orleans, for the year which closed on the 30th August, but must postpone it to our next number. The total receipts of cotton were 1,645,000 bales; stock, 10,500; crop, 3,200,000. Total value of produce received, $134,000,000; of which cotton, $68,250,000, sugar, $15,500,000.

The *Journal of Commerce* gives the revenues of the United States for the year which ended 30th June, 1853, $61,106,744, against $49,728,386, the year before; and $52,312,979, in 1851. On this basis it is estimated that the total—

Year ending June 30,	Dutiable Imports.	Free goods and specie.	Total imports.
1853	$225,000,000	$30,000,000	$255,000,000
1852	183,252,508	29,692,934	212,945,442
1851	191,118,345	25,106,587	216,224,932

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* United States Economist, August 6.—In our last number the production of coffee in the world was estimated at 476,000,000 lbs., on the authority of Mr. Lonsdale's circular, (see page 302.)

There are substantial grounds for believing that the grain trade will be a flourishing one during the coming year. The grain harvest is, to say the least, unpromising in most parts of Europe; a failure of the English crop is anticipated; in France the present crop is found to afford less than an average yield, and the last crop is quite exhausted. A rise in the price of bread has created, during the past summer, among the working classes in Paris, great excitement and complaint, leading to animated discussions in the open streets respecting the prospects of the harvest. This certainly speaks badly for the grain crop of France. Letters from Italy announce a failure in the grain crop there—that the wheat crop is far below expectation—and that Tuscany will be compelled to import corn. Bread in Paris has risen 13 per cent. since the 1st of July, and the quantity of corn in store is very small.* From all this it would appear that the prospect of a steady demand for American grain, in Europe, is nearly certain, even if there should be no war there.

Art. XI.—INTERNAL IMPROVEMENTS.

RAILROAD SLAUGHTER; HOW IT CAN BE REMEDIED—DEFECTIVE LEGISLATION ON THE SUBJECT—PROPOSED LEGISLATION—NUMBER OF ACCIDENTS AND DEATHS ON RAIL-ROADS DURING THE PAST SUMMER.

BEFORE entering upon our usual monthly summary of internal improvements, we wish to say a few words regarding the frightful disregard of human life which has been exhibited on some of our most important rail-roads during the past summer. We say disregard of human life, for it can certainly be nothing else! We need not enumerate the accidents that have happened, and the number of lives that have been lost, for these are matters of general notoriety; but we cannot avoid a few words of censure applicable to those roads that have stained their tracks with human blood. Steamboats had long been dreaded for their destructiveness of human life, and people cherished the hope, when rail-road cars came to take the place of them, that these were to afford better security to the lives of travelers; but how sad is the disappointment; instead of greater security there is greater destruction.

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* The following, from the *Journal des Debats*, will give some idea of the consumption of grain in France. That Journal says :—

It must never be forgotten that the corn trade is regulated by the cost of transport. Wheat is a very heavy and bulky article, and all the sources of supply, the United States and the Black Sea, being at a great distance from our ports, it is very important, under present circumstances, that we should be able to obtain supplies from a neighboring entrepot, as Liverpool, London, Malta, or Gibraltar. It is calculated that the consumption of grain in France, independent of oats for horses, is about 80,000 hectolitres, or 30,000 tons per day, so that every day's supply requires 75 vessels, of 400 tons each, to transport it. We may thus judge of the immense amount of shipping required, when, as in 1847, it was necessary to import 10,000,000 or 12,000,000 of hectolitres, or from 800,000 to 1,000,000 tons, which, after all, only represents a supply sufficient for twenty-five or twenty-six days. The transporting of such a supply requires about 2,000 vessels.

But why, we ask, should these frightful rail-road accidents so often occur? We answer, because men are, in these times, and in this country at least, more heedful of money than of human life. They care more about high speed than human safety. To save a minute, or a dollar, they are often ready to jeopardize the lives of a whole train of passengers. We do not say that rail-road men deliberately sit down and premeditate rail-road slaughters; but we do say, that they sit down daily and premeditate the ways and means of saving time and dollars, *without thinking* that their plans involve the *possibility* of a frightful slaughter of human beings. And here is where they are to blame. They are to blame, and ought to be severely punished, for suffering even the *possibility* of an accident to travelers; because, unlike steamboats, it is possible on rail-roads to prevent all accidents by using proper care, and incurring the necessary expenses. The evil of this latter item—the necessary expenses—these rail-road men do not like to incur.

What are these necessary expenses, which, if incurred, would prevent rail-road accidents? This question could easily be answered by rail-road directors, if they felt disposed; but they always prefer being entirely silent on the subject, and endeavor to make it appear that they have done all they can do to prevent the destruction of human life. Who believes them?

What they could do is this: they could have double tracks, in the first place; 2d, they could, by being a little more liberal with their money, employ intelligent, faithful and respectable "switch-tenders;" 3d, they could employ trusty and industrious men to walk the entire track, daily and hourly, in order to keep it clear, and see that the track is in order; 4th, they could have telegraphs to communicate information from post to post along the line; and 5th, they could have such rules and regulations regarding "turn-outs," as would effectually prevent the possibility of collisions.

Passing over the requirement of a double track, let us examine all the other requirements which we have laid down above. Why are there so many accidents through the carelessness, or something worse, of "switch-tenders?" It is because, to save a few cents a day, rail-road directors entrust the important care of a "switch" to some miserable, careless, drunken vagabond, who cannot be relied on—who, because his employers are careless about rewarding his services with a salary that would command an intelligent and faithful man, thinks that he too may be careless about his duty, and about the lives depending on his care. He gets nothing for his services worth an honest man's notice, and he labors according to what he gets. His pay is small, very small, and he makes his labors as light as possible as an offset. All this is very natural. It grows out of the pitiful, penurious, nay, murderous parsimony of rail-road directors. It is all to save a few cents a day. The traveling public and their friends suffer the dreadful consequences.

Again, men could be employed, at short intervals, along rail-road tracks, to keep them in perfect order and free from all obstruction. This is done in England, and in Europe generally; and this prevents the possibility of accidents from obstructions. Why is it not done in this country? Because, again, rail-road directors love money too well to incur such an expense. They think that, on the whole, it is better to let travelers take their chance of losing their lives from obstructions on the tracks; as although a few lives—which are nothing—might be occasionally lost, the rail-road company would save money by it, and have a greater dividend to distribute. In this matter, we say, again, rail-road directors are *criminally* to blame; for if they do not take all possible precaution for keeping the tracks clear of obstructions, they are guilty of suffering the *possibility* of fatal accidents.

Again, some of the principal roads have no telegraphs to indicate the movement of trains, &c., along the tracks, or to give other information necessary for the safety of trains and passengers. Is not this a criminal neglect? We think it is—and one highly criminal, too. The late awful destruction of human life, on the Amboy line, would not have taken place if this means of communicating information along the line had existed. And yet we are told by the *intelligent*[*] committee of investigation, that nobody was to blame except one of the engineers, who was censurable for carelessness. The poor engineer, we have no doubt, did as well as the miserable arrangements of the rail-road company would admit. They had neglected to provide means of communication along the line, and all the engineers could do was to "go ahead," as directed by the conductors.—The blame lay with the company, and they ought to be severely punished for it.

Lastly, it appears that, on some of the roads, there are no definite and positive regulations regarding the management of trains at "turn-outs." Where there is but one track, the simple regulation of requiring a train to stop at a "turn-out," until the other train arrives and passes, would prevent even the possibility of a collision. How, then, do collisions happen? By such regulations being entirely disregarded.

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[*] One of them could not write his own name.

The fact is, that all our legislation regarding the management of rail-roads is lamentably defective. Such legislation should extend to the minutest particulars regarding rail-road management. It should positively forbid the running of a single car on a road, that has not all those safe-guards against accidents which we have pointed out above, with the exception of a double track, and even that should be required on certain routes.

The only way to make rail-road directors decently careful of human life, and less penurious, is not to threaten them with indictments for manslaughter, &c., that only creating legal proceedings for the benefit of lawyers—but to enact laws compelling rail-road companies to forfeit the sum of at least $10,000 for every life lost by any accident whatever of the train—it being proved that the train, at the time of the accident, was in the charge of the agents of the company; and $5,000 for every passenger wounded not fatally; and that the company's charter be considered as forfeited, and no train be allowed to run, until the above fines for loss of life and for wounded be paid.

Such legislation would bring rail-road companies to their senses. It would teach them that human life was worth something, and that the granting of a rail-road charter was not a license to commit wholesale murder.

The terrible destruction of human life on rail-roads in this country—while in Europe it is a thing almost unknown—is becoming so common, that public indignation is beginning to be aroused. The laws afford no relief. Every verdict of a committee of investigation declares that no one is guilty. The present laws on the subject, such as they are, afford every facility for escaping punishment. If something is not done in the way of legislation, to punish the gross and criminal carelessness of the agents of rail-road companies, the public will take the matter into their own hands, and Lynch law will inflict its awful and summary punishments upon them. We would regret to see things come to this pass; but the public cannot, will not, quietly see men, women and children, made the sport of a few rail-road conductors and engineers, who, through sheer carelessness, and the bad regulation of rail-road companies, so often make wholesale slaughter of passengers entrusted to their charge. Some symptons of a lynching propensity manifested themselves at the Amboy slaughter; and if legislation does not soon come to the aid of the public, we may expect to hear of the awful and summary chastisements of rail-road agents without the aid of judge or jury.

To show the frightful extent to which rail-road slaughter has prevailed, since the commencement of the present year, we present the following table from the New-York Herald:

Number of Rail-road accidents, with the killed and wounded, during each month of the present year.

Months.	No. of Accidents.	Killed.	Wounded.
January,	12	25	40
February,	6	6	11
March,	14	24	62
April,	4	25	54
May,	8	54	49
June,	5	6	19
July,	11	8	22
August,	5	29	76
Total to Aug. 12......	65	177	333

Sixty-five casualties, a hundred and seventy-six deaths, and three hundred and thirty-three persons injured! There is a total which should put our civilization to the blush, and almost make men forswear the progress of the age.

Can it be believed that in a country like this, where we make our civilization a boast, there is no legislation adequate to prevent the monthly commission of human slaughter on our rail-roads? And yet such is the fact.* Who ever heard of rail-road agents or steamboat agents being punished for the destruction of human life, through their gross negligence of duty; or of rail-road or steamboat companies being punished for a laxity of caution and regulation which resulted in the most awful destruction of human life? Murder after murder is committed on our rail-roads, and all that is heard of them afterwards is, that the verdict of a committee of investigation declared that no one was to blame! Will the world believe it? Will they not just as soon believe, that such verdicts are bought with the money of rail-road companies?

In the name of justice, of humanity, and of civilization, we call upon the legislatures of our States to legislate more effectually for the preservation of human life on rail-roads. It needs no lengthened statutes to effect the desired object. To prevent effectually these horrid slaughters, our legislatures have only to enact *that rail-road companies shall pay the sum of* $10,000 *for every life lost, and* $5,000 *for every passenger wounded, and shall not run their trains until such fines are paid—it being proved that the accidents of the trains were not caused by the passengers.* The regulations of trains should also be fixed by law, and any violation of them, or neglect of them, should be punished by a fine of not less than $10,000.

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* Whatever may be thought of the following remarks, which we take from the Charleston Mercury, it must be admitted that there is much foundation for them:

"The character which the north arrogates to itself, of a more refined mixture of humanity and intelligence than is to be found elsewhere, is sadly illustrated by these swiftly recurring scenes of destruction on their great highways—nearly all of them, from the excessive desire for the reputation of quick travelling, and the looking at the end without regard to the means. Those who ought to be the responsible managers of the roads, are involved in many speculations at once, and the care of the interests of the stockholders and the safety of the public are entrusted to subordinates who neither know their responsibility, nor respect the trust committed to them. The spirit of racing, and furious running against time, is fostered by the public and by the press daily, while once a month the same public and press denounce the consequences as murder.

The ril-roads at the north seem almost without law, at least law that is recognised and obeyed. Hardly any of them have a double track, yet there is scarcely one of them where there is a distinct regulation to determine what a train shall do which is out of time. We judge thus, at least, from the character of the collisions. Besides, on the oldest and most frequented roads sharp curves, which might easily be obviated, are allowed to stand in spite of the terrible lessons of experience, like pitfalls in the way of the traveler, the end of which too often is death.

If any one should think this not sufficient, we would adopt the suggestion, in all seriousness, that the law should require, that *every train should be provided with a small private car, to be placed immediately behind the locomotive engine, in which, at least, one of the Directors of a company should always be found during the movement of the train*—a fine of $10,000 being forfeited by the company, in case that the car should cease to be occupied for a single moment during a transit.

The progress of rail-road enterprise in this country is truly astonishing. Road after road follows in rapid succession, and new roads are projected every day. It is difficult for any journal, except one devoted exclusively to rail-roads, to keep pace with them.

Art. XII.—EDITORIAL NOTES.

We are indebted to D. Appleton and Co., of New-York, for a copy of their new and very handsome edition, entirely revised, of Sir Charles Lyell's *Manual of Elementary Geology*, embracing the ancient changes of the earth and its inhabitants, as illustrated by geological monuments. The volume contains five hundred wood cuts. Sir Charles says in the preface, " This manual is not an epitome of the Principles of Geology, nor intended as an introduction to that work. The Principles contain a view of the *modern* changes of the earth and its inhabitants ; whilst the Manual, as above mentioned, refers to the *ancient*.

From the same source we receive the " *Philosophy of Sir William Hamilton, Bart.*," Professor of Logic and Metaphysics in Edinburgh University. arranged and edited by O. W. Wight, translator of Cousin's History of Modern Philosophy. The volume is intended for the use of schools and colleges, and includes nearly all that Sir William Hamilton has written upon metaphysics. The completed supplementary dissertations on Reid, the foot notes to Reid, and the philosophical portions of the discussions, have been used in making up the work. Another volume may follow, embracing a " General Preface to Reid," and a " Sequel to the Dissertations."

The Appletons are also publishers of *The Romance of Abelard and Heloise*, by O. W. Wight, editor of Hamilton's Philosophy. A very delightful book, over which one may muse and dream. Many of the deeply interesting letters of Abelard and Heloise are introduced.

The same house have issued *Don Quixotte de la Mancha*: a revised translation, based on those of Motteaux, Jarvis, and Smollett, with numerous characteristic, most ludicrous, and yet superb illustrations. The edition is, in every respect, a splendid one, and ought to be found upon every drawing-room table in the land, as an endless source of amusement combined with instruction. Who would be without his memories of the "Knight of the Rueful Countenance," and the redoubtable Sancho?

A. S. Barnes & Co., New-York, send us the "*Teacher and Parent*;" a treatise upon common school education, by Charles Northend, A.M., Superintendent of Public Schools, Danvers, Mass. Third edition. Also, *Youth's Manual of Geography, combined with History and Astronomy*, by James Monteith. Also, *School Architecture*, or Contributions to the Improvement of Schoolhouses in the United States, by Henry Barnard, Commissioner of Public Schools in Rhode Island. Third edition.

Crosby, Nichols & Co., of Boston, have published the *Cloister Life of Charles the Fifth*, by William Sterling, from the second London edition. A portrait of the emperor embellishes the title page. The volume is a learned, and, at the same time, most interesting one, in every respect. *The Eclipse of Faith, or a Visit to a Religious Sceptic*, is another volume from the same house, ascribed to Henry Rogers, author of many able papers in the Edinburgh Review, which have been published in England in two volumes. It has been reviewed in the literary Quarterlies of Great Britain, with elaborations. *The Sickness and Health of the People of Bleaburn*, is a small duodecimo from the same quarter, referring to the experiences of one, "who, throughout all her days, and particularly during her blessed and peculiar visitations in a far distant, obscure, and disease-smitten village, deserved the title of the Good Lady." The *Child's Matins and Vespers* is another little book adapted to the same ends.

A *Memoir of Mary L. Ware*, by Edward B. Hall; Crosby, Nichols & Co., Boston; embracing the life, faith, trials and works of an eminently pious and excellent woman. *The Prophets and Kings of the Old Testament*, a series of sermons preached in the Chapel of Lincoln's Inn, by Rev. Dennison Maurice, Professor of Divinity in King's College, London; Crosby & Nichols, Boston.

Lamport, Blakeman & Law, furnish us *Historical Memoirs of Louisiana*, from the first settlement of the colony to the departure of Governor O'Reilly, in 1770, with historical and biographical notes, forming the fifth of the series of Historical Collections of Louisiana, by B. F. French, Member of Historical Societies of Louisiana, New-York, New-Jersey, Connecticut, &c. The volume contains a very handsome portrait of M. de Bienville, the founder of New-Orleans, engraved from a portrait in the possession of J. D. B. De Bow, copied from the original in the family of Baron Grant, of Longueuil, Canada. This is believed to be the only portrait of Bienville in existence, and the first engraving that has been made from it, and, on that account, must prove of great interest in Louisiana, and recommend the volume to its citizens.

We copy from the Montreal Herald a notice of this portrait:

M DE BIENVILLE, THE FOUNDER OF NEW-ORLEANS.

Among the family portraits in the gallery of the Baron de Longueuil, of this Province, there is one in heavy mail, of M. de Bienville, a man famous above all others, for half a century, in the early annals of Louisiana, and the founder of the city of New-Orleans.

A copy of this portrait, with the owner's permission, has lately been made by one of our most distinguished artists, for Mr. De Bow, a citizen of Louisiana, and it is believed to be the only copy, as this is the only original picture of that truly great man.

"If you will examine," says M. de Longueuil, in a note we have been permitted to see, "the back of M. de Bienville's portrait, you will find his name, and the date when the likeness was taken, inscribed thereon by the artist. I can, of course, give no personal information on the subject, further than having frequently heard the late Baroness, my grandmother, mention the portrait as that of her relation, M. de Bienville, the founder of New-Orleans. My great-grandmother, who was still living when I was four years old, used to speak of it as such to the older members of my family. You are probably aware that both the above-mentioned ladies attained an extreme old age, and must, of course, have well known the portrait to be authentic. The reminiscences of my great-grandmother now dating more than a century back."

It cannot be other than a source of surprise, that, greatly as New-Orleans is indebted to the memory of de Bienville, no monument, or bust, or other representation of him can be found in any of her public buildings or squares. He was the founder of the city as much as was Peter the Great the founder of the one that bears his own name, and seemed ever to have cherished it as the darling object of his pride in spite of every obstacle, and at times in spite even of the seeming designs of his government.

M. de Bienville belonged to that illustrious brotherhood, the sons of Charles Lemoyne de Bienville, an emigrant to Canada in 1640, who distinguished themselves so much in the early annals of Louisiana. Promoted to the rank of Governor of the Province at the early age of twenty, he continued to occupy, with rare intermissions, that high position through every vicissitude of the colony, as well under the proprietary of the Crown as under the charters of Crozat and that of the Western Company. After forty years of service in the field and in the council, in hostile movements against the Indians, and at times against the Spaniards, he retired at last to Paris, ending his days there on the 7th March, 1767, at the advanced age of over 80 years.

Wild Jack, or the Stolen Child, by Mrs. Hentz. *Poems*, by Thomas Blanchard Read. *Hints on the Daguerreotype*, photographic pictures, &c. *Randolph of Roanoke*, Wirt, &c., by F. H. Thomas. These works are from the house of A. Hart, Philadelphia, through J. B. Steel, of New-Orleans.

A private letter before us says:

I observe that you intend to notice the proceedings of the Memphis Convention. In that notice I hope you will refer to the work before the Committee on Manufactures, whose report should be prepared with *very great* care, and give not only general views, but reliable and practical details. We should, *perhaps*, refer to every important manufacturing position in the cotton planting states, and show their relative advantages when compared with such positions in Europe, and in the Northeastern States. How can we get this information?

I *suppose* that there is as much available *water power* on the Tennessee and Chattahoochie Rivers as can be found either in England or New-England. Is it not important to prove the facts, and where shall we get them? Our topographical works of Tennessee, Georgia, and Alabama, are very meagre.

Suppose you call such attention to the matter as will elicit all the information we need. The Committee on Manufactures appointed by the Convention are, Hamilton Smith, of Cannelton, Indiana; William Gregg, Esq., South Carolina; Colonel S. D. Morgan, Tennessee; Hon. A. Fowler, Arkansas; C. G. Bayler, District of Columbia.

A gentleman in Tennessee has sent us a plan for a grand circulating library for the South, as a means of distributing information where the population is proportionately sparse. He proposes that central depots be established from which books will be distributed to the county towns of counties in the proportion of their subscription, which books, at the end of twelve months, will be returned, and new ones obtained. Every county subscribing 1,000 dollars would receive, perhaps, 1,000 new books each year, &c. We wish our people were as ready to take up county subscriptions, and as ready to tax themselves for the purchase of books and libraries, as they are for subscribing to rail-roads, &c. Something certainly may be done, but who will take the lead?

The Census of the United States will be published in the course of a month or two, in one very large quarto volume, 12 or 1,400 pages, neatly printed and bound. The manufacturing and mortuary statistics are not included. Congress did not order them printed. The arrangement of subjects in the volume is as follows:

I. Population by Counties—Classification of Ages and Color—Aggregate.
II. Population by Subdivision of Counties.
III. Nativities of the Population.
IV. Births, Marriages, Deaths, Dwellings, and Families.
V. Progress of Population from 1790 to 1850.
VI. Deaf and Dumb, Blind, Insane, and Idiotic.
VII. Colleges, Academies, Schools, &c.
VIII. Attending Schools, during the year, as returned by Families.
IX. Adults in the State who cannot Read and Write.
X. Professions, Occupations, and Trades of the Male Population.
XI. Agriculture, Farms, and Implements, Stock, Products, Home Manufactures, &c
XII. Newspapers and Periodicals.
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Art. I.—WHAT IS FAIR AND EQUAL RECIPROCITY?

RECIPROCAL TRADE WITH THE BRITISH NORTH AMERICAN COLONIES.—REPORT OF THE COMMITTEE ON COMMERCE OF THE UNITED STATES, FEBRUARY 1, 1853.*

WE do not intend a minute examination of the various facts discussed in Mr. Seymour's Report. It is enough that it recommends "the establishing our commercial intercourse with the colonies upon a basis of a fair and liberal reciprocity, and with principles congenial with the enlarged commercial spirit of the present age."

That being admitted, it is only necessary to consider what will constitute a fair and liberal reciprocity, and more especially what will be most consistent with the principles congenial with the enlarged commercial spirit of the present age? Nothing can be more inconsistent with this enlarged commercial spirit, than the restrictive system, or the doctrine of protection, as inculcated by what has been most improperly called the American System. According to our views, the only legitimate objects of protection by government are the repression of crimes, and the maintenance of order, justice, and security among individuals. Not only the person, but the property of the person must also have the benefit of this order, justice, and security. The restrictive system, which, under the pretence of government protection, confers special benefits on one class at the cost of others, owes its origin mainly to the navigation laws of Cromwell and Charles II. Every one knows that these laws, in the first instance, grew out of national animosity towards Holland. The murder of Dr. Dorislaus, at the Hague, and the insult offered to St. John, Cromwell's ambassador, by the Dutch mob, while it excited the resentment and pride of the Protector, called forth the professional gall of that distinguished lawyer, who found no difficulty, in the Rump Parliament, in carrying through a bill, which only conformed to the then existing national jealousy, on account of the superiority and cheapness of the Dutch vessels over those of England. At that time the Dutch were the common carriers for the greater part of British commerce, because their freights were lower, and they caught the greatest quantity of fish, even on the British coasts, and because they were more industrious and more skilful. (2d vol. *Anderson on Com.*, 415.) The novelty of the measure, "and the ignorance of some traders," was even then the cause of complaints. Merchants were even then stupid enough to feel that it was an injury to them, and gave for reason what would appear pretty weighty in these days. They complained that, "although their own people had not shipping enough to import from all parts whatever they wanted, they were nevertheless, by this law, debarred receiving due supplies of merchandise from other nations, who only could, and till then did, import them."

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* The readers of the Review who may not have adopted the views of our correspondent in regard to the laws of trade and industry, will bear in mind that our pages are ever open to a fair and free discussion of this as well as of all other similar questions.

The effect of this law, though it gratified national animosity, and may have injured the Dutch, was at the same time very detrimental to the people of Great Britain, for they were thereby debarred from receiving their usual and necessary supplies of food and other commodities, to which their own vessels were inadequate. To exclude competition from any business, must of course diminish supplies and raise prices; and the people of this "enlightened age" are pretty well satisfied that neither is to their advantage. There are not many to be found, not disciples of Dr. Alison or Mr. D'Israeli, who would concur in the opinion expressed by the Duke of Wellington, on the 14th of March, 1814, (*Maxims*, 416,) "that the repeal of the corn laws would raise the price of corn."

Never did so unwise a law receive such applause and commendation from the time of its enactment up to our "enlightened age." The delusion has at last been removed, and "mutual impediments" are no longer considered as national blessings.

It is admitted by the best British writers, that even before the late repeal of the British Navigation Laws, their unprotected trade employed by far the greater portion of their shipping, and increased at double the rate of the protected; and that trade which employed the most ships of course reared the greatest number of seamen. (*Navigation Laws*, 49.) Since the repeal, their tonnage has increased, and not diminished, as Dr. Alison and the Tories so strenuously contended would be the case.

Such, in every instance, has been the result of Free Trade, in relation to foreign commerce. Let us see if the same principles will not apply to the coasting trade?

By the coasting trade, is meant "the trade or intercourse carried on by sea between two or more ports or places of the same country."

"The coasting trade of the United States of America includes not only the carrying trade of the products or manufactures of one State to another, as the cotton of the South to the North, and the manufactures of the North and the production of the fisheries to the South; but it comprises also the carrying of foreign produce and manufactures from the great depôts of New-York, Boston, Philadelphia, Charleston and New-Orleans, (see the trade of these ports,) to minor ports of distribution. In short, it is the channel by which our vast productions, and imports received in exchange for them, are distributed between certain great points and every other part of our extensive coast or internal seas. Most countries, in imitation, or by way of retaliation, have, like Great Britain, excluded foreigners from all participation in the coasting trade. Unfortunately, bad examples are always more readily followed than good ones. So long as capitalists found her measures suited to their interest, they could not be too loud in commendation of the wisdom of England; but now, when she recommends justice to all, her wisdom is but folly. The policy of excluding foreigners from the coasting trade, commenced in England in the reign of Elizabeth, but was perfected by the acts of navigation of 1651 and 1660. Numerous minor regulations have since been enacted."—*McCulloch's Com. Dic.*

For some years after the attainment of their independence, the United States endeavored to induce Great Britain to repeal her navigation laws, and to adopt a more liberal course of commerce. National hostility and wounded pride no doubt again influenced England to retain measures really injurious to herself and to others. The United States, by way of retaliation, in 1787 adopted, word for word, the British Navigation Laws, and excluded, likewise, all foreigners from their coasting trade, as well as all foreign-built ships or vessels not owned and manned by three-fourths Americans.

Thus, it will be observed, that all these measures either grew out of jealousy, or were adopted by way of retaliation.

Lately, upon the repeal of the British Navigation Laws so far as concerned foreign commerce, it was said, at the time, that the British minister had made some intimation to our government of a readiness to abolish all restrictions on their coasting trade, and to throw it open to national competition. But Mr. Webster, the then Secretary of State,—who was always a much more faithful representative of the capitalists of New-England than of the people of the United States,—took the first opportunity to denounce the proposition.

The question is not a very apparent one, and has not as yet excited the attention of the American people which it deserves. It is very important, and deserves the serious consideration, and demands the wisest action, on the part of the democratic party. The whigs, we must say, have always supported the interest of capitalists as superior to those of the people. By whatever name the party has been known, it has ever pursued the same course:—as witness the American System, the United States Bank, and the unbounded patronage they have been always ready to lend to all the great corporations and monopolies, which capitalists and projectors, in their eager pursuit of gain, are so prompt to thrust before Congress.

The monopoly of the coasting trade is but a remnant of that restrictive system which has now been condemned by the wisest men, and by two of the freest and most enlightened nations on the earth. It is but a part of Mr. Clay's American System, which is a British Tory measure as old as the days of Charles the Second.

What is there peculiar to the coasting trade, that we should give a monopoly to vessels and persons engaged in it, and deny it to those who carry on the foreign and inland trade of the country? That it is the great nursery of seamen, and therefore necessary to national defence. But we have seen that the unprotected trade of Great Britain has proved a more fruitful nursery for seamen than the protected, including their coasting trade. And so satisfied is that people, who are apt to look to their own interest, of the folly of the measure, that they are now willing to abolish theirs, while they wish us to do the same.

To whom would it be most beneficial? Would it injure Great Britain? Their most intelligent and experienced seamen think otherwise.

Sir James Stirling, a post-captain, who had paid particular attention to the subject, upon his examination before a committee of Parliament, said:—"I think there is good reason to conclude that the foreigner could not by any possibility compete with English seamen, or English ships, in that particular branch of trade." The men, he remarked, entered into it early in life, and acquired the early habit. It required local knowledge; so much so, that even English seamen brought up in other lines, were hardly able to earn their salt in it. It required great hardihood and energy to navigate in long, dark nights, on the English coast. And he farther stated, that Mr. Straker, a person very much engaged in that business, gave in evidence, that "the coasting trade is one of those difficult trades to manage; that there are very few foreigners that could manage it; they could not navigate the coast: we understand that better than they do, and that they cannot deprive us of."—*Ricardo*, 51.

These very objections, it would seem, apply in as great a degree to the navigation by foreigners on our coast, which is much more extensive, and less known than that of Great Britain.

"It would in any case," said Mr. Young, in his examination, "be purely visionary for the British ship-owner to expect to man his ships with foreign sailors; it being opposed to all the principles of human nature, as well as experience, to imagine that men, except under the pressure of absolute necessity, will, in any considerable number, abandon their homes and country to enter into employment in another country."

All this is very true so far as Europe is concerned; but herein exists the great difference between Great Britain and the United States. Foreigners, it is true, would not be likely to enter into the coasting trade of either of these nations, to any great extent, though we see no difficulty in their navigating between their more important commercial ports; as between London and Newcastle, or Edinburgh, Liverpool and Glasgow, or between Liverpool and Dublin, Cork or Belfast. Surely, Yankee seamanship would find no difficulties in that navigation. It might have seemed a strange idea to Mr. Young, a few years since, to suppose that foreigners should, in great numbers, abandon their homes and country and go into the coasting trade of another country; but that circumstance, at present, as far as America is concerned, would seem a mere matter of course, and it would be no surprise to us if they came, ships and all. If we are to give credit to the opinion of the London Times, the next rush of capital will be to the United States; and if we are to believe the statement lately taken from an English paper, English sailors, dissatisfied with their present condition, have already, at some meeting, threatened to take their departure for America, and had raised the star-spangled banner in the place of the union-jack. Already the tide of population is flowing from Great Britain to America by millions; and the real advantage we have over that country is, that if we throw open our coasting trade, we will not only bring her seamen here, but also her ships and her capital. It is but fulfilling the tendency of the age. Such is her and our destiny. The gulf stream is not more steady in its course than this stream of emigration; and though it may not continue as great a number of years, yet, until it accomplishes its end, and places the rewards of labor and the means of subsistence on the same level in America as in the Old World, that current will run, in spite of all the restrictions, all the protection and regulations which law-givers can contrive. A foreigner may come here and settle upon our public lands, and acquire a home won by the blood and money of the American people. He may share in the gold mines even with the sons of

China; may take stock in banks, rail-roads, insurance companies, hold commissions in our army, or do whatever a citizen may do, except exercising the right of voting and legislating, and the law does not object. He may follow any trade by land, undelayed by apprenticeship; may run boats, coaches, wagons —in short, exercise the rights of common carriers in every phase, and no one complains—the law does not object. Then why exclude him from carrying from port to port by sea and not by land? He may, as any citizen may, build a rail-road from New-York to New-Orleans, and carry all the cotton and sugar of the latter place to the former, and bring back all its supplies of goods, and the law of protection does not interpose. The rights of our mechanics, laborers and capitalists, are not supposed to be impaired. Then why should the interest of ship-owners be the object of so much more solicitude and monopoly than the interests of all other classes of our fellow-citizens? If foreigners are allowed to compete with us on land, why not by sea? If on the high seas, why not on the coast? If they may compete on any of the rivers of a State, why not on any waters? Whatever is individually profitable, is profitable to the nation, which is the mere aggregate of individuals. Does not every one find it to his advantage to employ the cheapest and best means of transportation? We all prefer to judge and choose for ourselves. Suppose A. has a cargo at New-Orleans which he wishes to transport to New-York or California, and that there are not American vessels present, ready and willing to take the load at a reasonable freight, but that the harbor abounds with British or Baltic vessels willing and ready to do the business on lower and otherwise more advantageous terms,—would A. feel that he was fairly dealt by, if he was prohibited by the government from employing such vessels, to favor B., who may be residing at his ease in New-York or New-England, and to patronize his ships that may be fully employed elsewhere, or may choose to demand higher freights than others are willing to take? Is it not apparent that such impediments increase the costs of the shipper, while they raise prices to the consumer? The proposition, when thus stated, seems monstrous, and yet such is literally the case.

"The Navigation Law," says Mr. Holt, a well-known British writer on shipping and navigation laws, "regards this trade to belong as peculiarly to British subjects, as the internal navigation of the country itself. Upon this principle the legislature confines it entirely to British ships, seamen, and capital."—(1 vol. 192.)

This may be English, but it is not our policy. Our policy is to draw to America all the capital and all the men we can from the overstocked nations of Europe. Can it be doubted but that, if foreigners were allowed to come here with their vessels and seamen, to participate in the profits of our coasting trade, that they would find it to their advantage to follow soon and take up their residence amongst us, and become citizens of the great republic? Capital, yielding higher profits here than in the old country, would come along with the trade, and seize the advantage of new investments; and thus the capital, tonnage, and the population and marine of this country, would all be increased by this wise and liberal policy.

Under these circumstances, we cannot conceive why a monopoly in the carrying trade should be granted where it is conducted from place to place by sea, and not so where it is conducted by land, or by inland river, or canal navigation.

Mr. Ricardo states somewhere, that even in England, no law prohibits the carrying of passengers from port to port by steamers, though prohibited by sail.

So far from protection supplying and maintaining the great nurseries for seamen, Mr. Ricardo states a fact, often acknowledged by British writers, that the independence of the American states, so far from injuring the commerce of Great Britain, "gave the impulse of competition to their shipping, and forced them into greatness on the *free* seas." Whatever increases commerce increases shipping, and whatever increases shipping increases seamen, and competition, and not protection, furnishes to each nation the greatest nursery for her seamen, and is more important to national defence than all the restrictions in the statute books. So far, then, from fearing competition in our coasting trade, it is our policy to invite it.

Why should we fear the competition of England or of her colonies in the fishing or in the coasting trade, when, living in an untaxed country, we can build ships with equal skill and less expense, having cheaper timber and cheaper victuals? If we labor under any disadvantage it is in the cost of iron, and if in that matter we are taxed, it is to favor the protectionists; an evil which should be remedied, so far as the law is concerned.

There is not a country having stricter navigation laws than France, and what are their fruits? Her protective system is more complete and thorough than that of any other nation of Europe, but her industrial progress is by no means to be compared to others much less protected. Her commerce and her agriculture are at the lowest ebb. The same may be said of Spain and Mexico.

The whale fisheries, unprotected by drawbacks, bounties, or monopolies, afford a much more valuable nursery for seamen than our mackerel and cod fisheries, or than the coasting trade, which are protected by bounties and monopolies, and at the same time yield greater profits. Not long since we saw that the whalers found it to their advantage to send home their oil from Bermuda by British vessels. If any one finds it to his advantage, whaler or not, to use British vessels for the carriage of his goods, why should he not be allowed to employ them? It is competition, and not protection, as the liberality and intelligence of the present age teaches us, which leads to success in all business; and unless this competition is left free, the equality and justice of a free country is violated, legislation is perverted, and that general protection which is due alike to every one, is distorted into special favoritism. Such legislation may be consistent with the principles of the Tories in England, but not with those professed by the democrats of America. To open the coasting trade, then, of the United States, is not only to render justice to the great mass of the people, which constitute its producers and consumers, but in truth, to render service, in the end, to our protected ship-owners themselves, by exciting that wholesome competition so essential to progress and excellence in every employment; and would be only placing all of our capitalists and seamen on the same footing of equality and justice.

We have shown that there is a peculiar tendency to emigration to this country, and that it is of great importance to us that this tendency should not be checked; but rather that all unfair obstacles to it should be removed, as it enhances our power to accomplish great objects in our wondrous progress. Would it not be folly in us to obstruct this avenue to prosperity merely in order to maintain a monopoly to a few ship-owners, whose greatest claim to favor is that they have enjoyed it for nearly seventy years?

The English may now suppose that foreigners cannot compete with them in their coasting trade, but they did not think so when they adopted their navigation laws, or they would have considered it a useless precaution. England may now be right to a certain extent, in believing that foreigners cannot compete with her own subjects in their coasting trade; and the reason is obvious, because she is not now near to any nation whose marine skill and enterprise is at all comparable with her own; but the time was when Holland not only imported into England, "from all parts," whatever was wanted, but actually monopolized the fishing on the coast of England, as well as their coasting trade, and British ship-owners complained that their mariners, for want of employment at home, went into the Dutch service. Similar causes must produce similar effects. It must be remembered, too, with regard to ourselves and England, that we speak the same language, and are accustomed to the same laws; as it is admitted, here at least, that our vessels are of superior model and effectiveness to those of England, and their cost less, if we cannot compete with her subjects in their coasting trade, we could at least enlarge our market for ship-building, by supplying them cheaper than they can build. We find it stated, upon the authority of the *Newburyport Herald*, that while the cost of the best ships in England is $97 per ton, in the United States it is only $65. (2d *vol. De Bow's Ind. Res.*, 186.) It has been shown, then, that the benefits of fair and equal reciprocity is "decided and important" to the American ship-owner. Under this system, our ship-builders have an advantage, (it has been properly said,) which fully warrants the conclusion, that the British ship-building interest, notwithstanding its present flattering condition, will ultimately, and speedily, succumb to the growing energies and capital of America.

At this time, too, there is an extraordinary demand for ships in consequence of the opening of the California trade. It is stated, on the authority of the *Dry Goods Reporter*, (2 *De Bow's Resources*, 186,) that during the past year California drew off 700 vessels from the Atlantic, amounting to 240,000 tons; and the demands for the growing commerce of the Pacific must increase rather than diminish that drain. Under such circumstances our ship-builders cannot complain of the want of a market, nor our sailors of the want of a nursery. And possessing such an abundant and profitable market, it would seem unblushing assurance to ask protection of the government, at the expense of impeding the progress of the whole nation.

Suppose, however, that it be true that no foreigner can compete either with Great Britain or America in their coasting trade, then it follows that the monopoly, while it is in violation of equality, is of no use whatever to the ship-owners of either country, and, as a useless precaution, should be removed for decency sake. From official returns, it appears that not only the foreign but the home tonnage is rapidly increasing in both countries. It proves that the demand of the commerce of each is more than can be supplied by the tonnage of either country. Australia has proved to Great Britain what California has to the United States. It has created a new and very considerable demand for vessels. It is to the interest, then, of both nations, that every facility should be offered rather than denied to the demands of their commerce.

The mouths of the iron-masters, of late years, so clamorous for further protection, have lately been cruelly stopped by the great demand for, and consequent rise in the price of iron. After seventy years' enjoyment of the monopoly of the coasting trade and fisheries, and the great demand for ships, we think the ship-owner, too, should now be estopped from asking further protection.

By the act of Congress of 1812, it is authorized that steamboats owned wholly or in part by an alien, may be enrolled and licensed for the coasting trade, provided the agent is a resident of the United States. Now, the steam tonnage engaged in the coasting trade already amounts to more than half a million. If the policy is applicable to steam-vessels, why not to sailing vessels? The mind of a person must be very much prejudiced or obscured by interest if he cannot see that it is more to the interest of the United States to encourage the transfer of capital to our country, than to drive it off; and it seems equally plain that commerce should be opened to competition, rather than obstructed for the benefit of some particular interest.—Can it be more injurious or dangerous to the country for a foreigner to vest his capital in a vessel engaged in the coasting trade, than in a rail-road, canal, or insurance company? The spirit of monopoly makes us often see things in strange lights. Voltaire, in one of his comedies, makes a monopolist say:—"*Les affaires publiques me désespèrent; toutes les denrées sont a bon marché; ouvrage dans une abondance pernicieuse. Je suis perdu, je suis ruiné.*" "The state of public affairs drives me mad; all provisions for man or beast have become cheap; the world is flooded with pernicious plenty. I am ruined and undone."

This brings us to the question: What sort of reciprocity shall we have? We answer, that sort of reciprocity which has been asked for by General Washington, Mr. Clay, General Jackson, Mr. Van Buren, and by Mr. M'Lane; to wit, "*perfect equality and reciprocity*"—equality to all concerned, and reciprocity in all commodities. We protest against any special legislation or contracting by treaty, for the benefit of contiguous localities. Its being made a sectional reciprocity, to suit the peculiar interest of a few States adjoining the British Provinces, should certainly not meet with the approbation of the nation, and has already been very properly objected to, by a writer in the preceding June number of this journal. It should apply to all the British American colonies, at least, and comprehend all commodities of trade. We protest against all "leading articles," as having no other end than the protection of certain interests at the expense of all others. Our agricultural and commercial interests must be as closely and as fairly looked to as that of the manufacturing and ship-building. The West and South are as much concerned as the North and East—Ohio as much as New-York or New-England. Already we see that Ohio and other States, bordering on the Mississippi and its waters, are about to become the great workshops for building vessels to supply the market of the world.

"In consequence of gradual concessions," says Mr. Seymour, in his report, "American vessels are now admitted to registry in British colonial ports; can sail from one colonial port to any other colonial port, in any other colony, or to Great Britain, with colonial or other produce; and can enter all colonial ports, and load and discharge their cargoes, wherever there is a custom-house officer; subject, however, to the restriction, that they shall sail from one port to another in the same colony only in ballast." This restriction is an absurd one, and should be removed and not imitated. These concessions, the committee acknowledge, have been of great advantage to our shipping, which thereby often find employment, which otherwise would be wanting; and "our larger and more costly ships have made remunerating freights by the transportation of lumber from the colonies to Great Britain." Why not, in return, allow the vessels of each nation, "during periods of stagnation" or of high demand, to take cargoes from any one of their ports to another? Why object to a British vessel's taking a load from New-York to San Francisco, if she can do it cheaper than an American vessel, or at a time when American vessels, being otherwise and better engaged, are not at hand to do it for the shipper, or cannot do it on as good terms? To refuse permission under such circumstances is, precisely, acting the part of the dog in the manger, and is much more consistent with the pride and ambition of Oliver Cromwell, and the reckless tyranny of Charles II., than with the character of our boasted enlightenment.

"The extension of intercourse," says the report, "and the increase of trade caused by the legislation of 1843, had shown the colonists the advantages of our market, and the facilities we possessed of supplying all the necessaries of life which were not furnished by their own productions. They were now ready to propose to us an arrangement of commercial intercourse, founded upon those principles of perfect equality and reciprocity, which the United States had always professed to be the policy of her commercial intercourse with foreign nations."

But the offer through the Canada legislature has been only to provide "for reciprocal trade in *natural products*." There is a squinting towards the protection of certain interests only, in this proposition, and it is not consistent with the "principles congenial with the enlarged commercial spirit of the age."

We repeat, reciprocity, to be equal and just, even to ourselves, should comprehend all commodities. On the part of the United States, our duties should conform as nearly as possible to those of the provinces, and not double the amount, as they do at present—ours averaging 23¼ per cent., and theirs but 12½. (Report, p. 6.) The committee has very properly said, that this is "one of the most important questions affecting American commerce;" and "the population upon our northern and eastern frontiers, and in our great cities," must not be considered as the only part of our people concerned in the settlement of the question. The West and South are equally concerned, and must not have their interests neglected. We must admit from the provinces their lumber, their coal, gypsum, fish, breadstuffs, beef, skins, cod oil, ashes, grain, animals, or any other article of trade; and they must take our tea, coffee, wines, cigars, dried fruits, hides, sugars, cotton, grain, tobacco, bacon, pork, or any other commodities that we may find profitable to exchange with them. We must place the vessels and seamen of each nation on an equality in the fisheries, in the coasting trade, and where-ever mutual navigation can extend. This is the only union that we believe can ever contribute to the benefit or comfort of either party. The right to navigate each other's rivers is no injury, but a mutual benefit. It is a great advantage to any country to make a highway of its rivers, for the transportation of passengers or of commercial commodities. It is of Chinese policy to oppose it. No danger can arise from it in time of peace, and in time of war your enemies will navigate your rivers, if they please, and in spite of you, if you have not the strength to keep them out. The power to resist or repel them in time of war is not lessened by reaping the profits derived from such navigation in time of peace. Besides, such intercourse becomes a mutual guaranty for peace, and renders it more difficult and unpopular for nations to go to war with each other. Amicable and fair adjustments, under such circumstances, are more readily effected, and the expenses and losses of war better discerned and more apprehended.

Already these British American colonies have become "one of our best customers." In 1851, (see report of the Secretary of the Treasury, 319), the value of our exports to that country exceeded $12,000,000, exclusive of specie, which should be included, being the peculiar produce of one of our States, and the imports exceeded $6,000,000. "Through the influence (says Mr. Seymour) of the relaxations of former restrictions, adverted to by him, the trade has nearly quadrupled in a period of twenty-two years."

In the language of Mr. Pitt, we must look "*to the most enlarged principles of reciprocal benefits to both countries*," but not fall into his error, in proposing to allow American vessels *to export any merchandise whatsoever from Great Britain*, while limiting their *imports only to the goods, the growth or manufacture of America*. We should avoid such an apparent inconsistency with our professed principles. Why should we not abolish our system of bounties, drawbacks, and exemptions to our cod and mackerel fishermen, which is not allowed to our whalers? Why should we not permit colonial built vessels to obtain American registers, that privilege being already granted in England to American and other foreign built vessels? Why drive from our trade any vessel? Why not throw open the California coasting trade, if not the whole coasting trade; that is to say, to allow British vessels to load in the Atlantic States for California, or from California to the Atlantic States? Why not abolish the duties on fish brought here in colonial bottoms, and require in return the free navigation of the River St. Lawrence—the right of free fisheries in all their waters? There must be no favored ports on either side; no "leading articles" of agriculture, commerce, or manufactures; no native growths or produce; no looking alone to the navigation of the St. Lawrence, or the exclusion of coal; no looking alone to the trade of *our great commercial city* or cities—to the inland navigation and transit trade of the States bordering on the British Provinces—on the agricultural interest, on the manufacturing interest, on the interest of the lake trade, or of the northwest, or of the fisheries, or of the Erie canal, or the Champlain canal; nor of the Ogdensburgh and Boston, nor of the Erie and New-York, the Portland and Montreal rail-roads, nor that of Sunbury, or of any other place; but we are to raise ourselves to a higher platform, and look alone to the revenue and to the interest of the great body of the people of these States. We trust we shall not hear great outcries from Pennsylvanians about their coal and iron. We are told by them that their rail-road iron is worth 3 to 1 in comparison with the English, and that while the wear of the English is 4 and one-tenths per cent., that of the American is only 1 and four-tenths. Protection in such cases cannot be necessary, nor competition dreaded. Besides, we are told by the *Philadelphia News*, that "the iron and coal of Pennsylvania, no doubt, yields at this time $20,000,000 per annum. It is likely that in ten years this sum will have increased to $50,000,000, and our coal and iron trade will eventually make Pennsylvania the richest State, and Philadelphia the wealthiest city, in the Union." Then, surely, these iron and coal masters should not occupy the disreputable position of beggars in the lobbies of Congress, and should no longer expect the people of the United States to throw impediments in their own way, to add to such boasted prosperity.

If the protective policy of England owes its rise to national animosity, it has been well said that ours owes it to "national weakness and vanity;"—the vanity and weakness of one desiring to render himself independent of his shoemaker, and for which folly more than twenty millions are mulcted to make the fortunes of a few capitalists and politicians.

While we expect great benefit to all the States from liberal commercial regulations between the United States and the British American provinces, we cannot expect to derive all the profit on our side. There must be mutual advantages—mutual advantages between the two nations, and liberal concessions and compromises on the different parts of our extensive and diversified country. Each State may desire to exclude some certain commodity which interferes most with its market, and to admit others that it desires to procure as cheap as possible; but while the exclusion of one article may be beneficial to one State, or a majority of its people may suppose so, it might prove very injurious and unjust to all others. Principles, becoming the liberal spirit of the age, must control in the settlement of a great question involving so many interests as this does. The contracted spirit of monopoly must be put aside. The idea that great benefits are derivable from mutual impediments must be abandoned, and the policy of Hook's "Small Coal Man" be given up,

"Who says as how, ven he gets control,
He'll make all things dog-cheap—but coal—
And gin shall flow in each man's can,
Says my prime little trump of a small coal-man."

The following quotation, from a late *New-York Herald*, (Feb. 1853,) is so apt, that we cannot refrain from inserting it:

"We conceive that a reduction of the duty on coal would not be less beneficial to us than to the colonists. A part of the sixty cents a ton now levied on bituminous coal would be saved in most instances to the consumer. In those branches of industry in which anthracite cannot be used as a substitute for bituminous coal—such as gas factories and certain descriptions of iron factories—the repeal of the duty would be an immediate gain to the manufacturer, and, of course, an ultimate gain to the consumers of gas, iron manufacturers, &c. This, when the enormous and increasing consumption of gas is borne in mind, would be no inconsiderable boon to the public. If Nova Scotia coal could be laid down here at $5 a ton, as we have no doubt it could were the duty removed, it would tend to cheapen many commodities in the production of which coal is used, and would add materially to our individual comforts.

"If any clamor for protection to our collieries, our reply should be brief. The colonists are compelled to extract their coal from pits inland, to convey it by very imperfect means of transit to the sea-board, and, finally, to transmit it in ships to our ports; our coal is at hand, at the doors of the market. If the difference in the cost of transportation and freight be not a sufficient protection to our producers of coal, they are a burthen to the community, and had better turn their attention to some other calling. We respectfully recommend the suggestion to the notice of Congress."

Protection by bounties, high duties, or otherwise, is not necessary to any business that yields the usual profits of capital, and if given to induce persons to follow a losing concern, it is unwise, and unjust to the public.

Whilst we have thus declared ourselves in favor of fair and equal reciprocity, we should hesitate to oppose any step taken towards that object which is not grossly partial in its tendency. Every step taken towards free trade must, sooner or later, lead to another, and each gained facilitates the ascent to another; and we must have patience if the progress is not so rapid as we could desire.

The report of the committee, and the statements and documents embracing the official correspondence on the subject, deserve the serious attention of our statesmen, and should not be neglected by our southern and western press. It is too important a subject to let pass with indifference.

Before we conclude, we beg to call attention to one fact, to illustrate the too often repugnant results of unwise attempts at protection. Before the Revolution, Adam Smith refers to our unprotected fisheries as so much more flourishing than the protected fisheries of Great Britain. But as soon as our general government was formed, under the prevailing idea of the necessity for maintaining a nursery for seamen, the cod and mackerel fisheries became the favorite objects of protection, and have continued so until this day.* Notwithstanding this fostering care of nearly 70 years, that business has greatly declined, while the unprotected whale fisheries greatly flourish; and the committee gives, as the first cause of this decline, the diversion of labor and capital, formerly exclusively employed in this fishery, to certain branches of manufactures; so much so, that in "Beverly, which sent forth annually a large fleet to the banks, there is not a single registered vessel in the cod fisheries." Thus showing that the protection on the part of government of the manufactures of New-England has destroyed that very nursery of seamen about which government was so solicitous. In patronizing the younger darling, it has destroyed the first-born. Such has ever been the wisdom of government protection.

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* Mr. John Adams declared in Congress, in 1779, that the fishermen of Massachusetts were no better in substance than slaves to their employers.—3d vol. *Hildreth's History U. S.*, 397.

Art. II.—THE ARMY OF THE UNITED STATES.

MILITARY EDUCATION—REGULAR TROOPS AND VOLUNTEERS—ARMY ORGANIZATION, ETC.

A GREAT improvement in the military intelligence of the country has been apparent, since the first battles of the Rio Grande, in the late war. It is now generally conceded by military men—including all the well-informed of the officers of volunteers—that experience in service and instruction, either at the military school or in the field, are requisite qualifications for command.

It is admitted, in short, that while our citizens in arms have more efficiency, their lives are safer under the direction of men who have some knowledge of service in the field, than under those who are without any, whatever may be their personal qualities or civic distinction.

At the declaration of the war which is called our second war of independence, we had the amount of twelve regiments then in service—estimating the artillery of twenty companies as a double regiment—to wit: one regiment of light artillery, one of light dragoons, the two of artillery, seven of infantry, and one of riflemen. The youngest of these had been organized and in service four years. Can any one doubt that if these regiments had been filled to the war establishment, and assembled in a division of twelve thousand men, under any general-in-chief (having only a firmness of purpose equal to that of Henry Dearborn), it would have been sufficient to overcome any forces which the enemy possessed, or had at any time collected, in Canada? Had this little army been formed into brigades, and commanded by their rightful, though casual, seniors—as was the case at the commencement of the late war, under Gen. Taylor (himself a brevet brigadier),—and the general staff selected from the officers then present, inclusive of the Corps of Engineers,—how long would the posts of Montreal and Quebec have stood uncaptured before it? The regiments of volunteers, and those called "year's men," subsequently raised, could have been more fitly, and less expensively, employed in the local defences of the country. This appeared to have been the design of the War Department, in the first organization of the nine military districts; but there seems to have been no unity of plan, at any time, in the councils of the government.

What an economy of expenditure would have resulted from this course!

The *constitutional* objection with some of our State troops—so disreputable to the government of a republic—to crossing its boundary, would in such case also have been avoided.

A brief view of the course which was pursued in conducting that war will readily account for the exhaustion of the treasury, and of nearly all the government's credit; and from commencing at the extremity of the line, instead of advancing on the main posts at the centre, with the essential defect of organization, to which reference is made, may be easily understood the causes of our disastrous failures.

It is a fact, that after nearly two years of the war had expired, we had scarcely one general officer qualified to lead a brigade, until such of the colonels of experience, as Macomb, Thomas A. Smith, Bissell, Gaines, and Scott,* were promoted; Pike and Covington having been killed, and Cushing assigned to the defence of a district.

Can there be a doubt that for the command of a division, a brigade, a regiment, or a company, an officer of twenty, ten, or three years' experience in service, will be superior to one who has been but twenty, ten, or three months in commission? The proposition is so simple, that it would seem to require an apology for stating it—it being recollected that war is truly called an art—that no human art was ever acquired by intuition—and though battles have been won under tyros, or men without instruction, no exception can be deduced from these; for certainly there is no science, art, or craft, in which man's capacity can be developed, without preparatory trial or training.

A free display of the knowledge and ability possessed by an officer requires also coolness and self-command. These can only be attained by adequate experience and the full practice of discipline; and the longer the experience and the more the practice, the greater, of course, will be the self-reliance and self-possession. It is preposterous to expect that a citizen, whatever may be his personal bravery, can exhibit such qualities in his first engagement, or on his first command of men in action. He may exhibit rashness—of which numerous instances will at once occur to the memory; and many instances, too, of the consequent waste of his men's lives will be recollected.

Thus it will ever be found that in those parts of battle-fields where have been displayed the least military foresight and skill, there will be the greatest destruction of life, with the least success, not alone to be accounted for by the superiority of an opposing force. Such may be assumed to have been the case, from the representations of officers of the volunteer regiments themselves, on the *left* of our line in the victory of Cerro Gordo. And in parts of the great battles of the Valley of Mexico, instances can be named where the superiority of opposing forces could not have been sufficient to account for the partially disastrous results. It is a truth, obvious to the men of service, (but which has, of course, been unregarded by our civilians, in their preparations for the field,) that where the best skill in position, and the most efficiency of fire are exhibited, the least injury will be received from the enemy, whatever may be his superiority in numbers. In the attack and capture of the enemy's strong positions on the *west* of Monterey, this theorem was beautifully illustrated. And at Buena Vista the best disciplined and best commanded of the regiments which so signally stood their ground in that hard-won conflict, furnish also illustrations of this maxim.

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* Mentioned in the order of seniority.

On the emergency of a war, it has been argued that to facilitate the raising of volunteer forces, it is necessary to commission from civil life men of popular distinction, to command brigades, regiments, &c., to gain their personal influence in calling the people more speedily to the standard of their country. But is there any reality in this argument? After the battles of PALO ALTO, LA PALMA, and FORT BROWN, were there not field-officers and captains, and even elder lieutenants, of those who had gained such wide-spread applause, whose names would have been equally, aye more, effectual in rallying volunteers to the standards of new regiments and brigades? In those states particularly, where such officers were claimed as fellow-citizens, and where whole communities were proud of their glorious achievements, can there be a doubt of the superior influence and success of those in the fulfilment of such a trust? Certainly the good sense of our people, and ardor for the service, would both be better satisfied by their expected reliance on the lead of such tried and approved commanders.

A better system of rewards for gallant and distinguished services might be adopted on this plan—to replace the one by brevets, of more usefulness to the country, and of less objection with the permanent corps: the same provision being made for the restoration of the officers so employed to their former corps, at the end of the war, as was made for the six or seven so fortuitously taken in the last war. [See remarks at the end of this article.]

The writer is far from claiming that the requisite preparatory instruction to qualify officers for the service is only to be obtained at the Military Academy. After the precedents of the brilliant names which the army registers have borne—of Scott and Taylor, Gaines and Jesup, Worth, Kearny, and all the twenty-three general officers in service and on the register of 1850 (omitting those from the military school), besides the names of Edmund Kirby, Brown, of the 7th; Scott, of the 5th; Allen and Page, of the 4th; Alburtis, Lincoln, C. Hanson, and of others, still living, who were not graduates of that school—such a claim could not be sustained. But it must be observed, that all of these, with no material exceptions, rose from the lowest grades of rank, and received their instruction through all the intermediate grades of advancement.* The only peculiar case, of the twenty-three generals referred to, is that of the colonel of mounted rifles, whose previous course of military instruction and actual service in the Florida war will fairly account for the exception.

The great names also of Brown and Jackson, under whom the reputation of our country for superiority in arms was first established, may be cited as exceptions to the rule requiring preparatory military service for commands-in-chief; though the hardy pioneer enterprises of the former, and his recent achievement in the defence of Sackett's Harbor, and the actual experience of the latter and successes in previous wars, had given fair assurance of the higher qualifications of commanders.† And at the most, after so many experiments of this kind by the government, it would be strange if a few exceptions should not be found to the safest and clearest principle of military organization. It would be no evidence of military discretion or wisdom, if a tried commander, at a future day, should deliberately engage an enemy of 20,000 well-organized troops, with a force of less than 5,000, and of these, fewer than five hundred regulars, and for the justification of his acts should refer to the example of General Taylor, who had done this and triumphed. Such a commander might calculate the *chances;* and, relying on his disciplined chiefs and his experienced general staff, the emergency might be such as to justify the attempt; but certainly the example could not be adduced as a proper military precedent, even for American troops.

A more particular reference is not made to the names of those distinguished in the war of 1812, as the number of graduates from the Military Academy up to that year, all told, was but seventy-one; and the number, therefore, in service was not sufficient to officer the new levies. But it must be remarked, that the *whole* of those graduates were strangely overlooked, in making the higher appointments at that time in the new corps; not that *they* had any claims to advancement, but the interests of the government, if properly represented, had claims to their services in higher positions, speaking of the major part of them —among whom appear the names of Swift, McRea, Totten, *Heileman*, Gratiot, *E. D. Wood*, *James Gibson*, (promoted in the staff, and two years after to colonel 4th rifles,) Post, Thayer,

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* The general-in-chief, and the Generals Gibson and Bankhead, Wool, Twiggs, and Towson, commenced their service in the grade of captains—all the others as lieutenants or ensigns; Major-General Brady first entered the service as an ensign in 1792, and recommenced as a colonel in 1812.

† The distinguished name of Boyd, who commenced as colonel of the 4th infantry, might also be considered an exception; but he had previously, in the East Indies, evinced extraordinary military enterprise, and had seen very active, though irregular, service in the field. [See his name in the "Dictionary of the Army."]

Rathbone, Peters, Magee, (who sought a juster estimate in the patriot service of another republic,) *A. J. Williams*, A. Larrabee, *H. A. Hobart*, Dalliba, Loomis, *Burchsted*, *Ronan*, *Wilcox*, Hight, *W. W. Smith*, and others. (Those whose names are *italicized* laid down their lives in the field.) Except the first named, who was a major, and McRea, Gratiot and Gibson, who were captains, all the rest, when the new corps were commissioned, were left subalterns, and in most instances subordinate to the raw materials appointed over them! That it would have been to the advantage of the government and the country to have selected from these, and from others of higher station and long experience then in the army,* the commanders of divisions,

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* Of the other officers, who had been in service before the declaration of war, and were subsequently distinguished in the grades they held, either in battle or by being selected for staff commissions, the following names were entirely overlooked at the time of the appointment of general and field-officers for the new levies, required for immediate and efficient service:

(*Of Field-Officers*:) Kingsbury, C. Freeman, *Backus*, Milton, James Miller, Fenwick, McRea, Nicoll, *Stoddard*, Bowyer, Laval, Eustis, Floyd, Posey, and Geo. Gibson.

Of the Artillery: (Capts.) Read, N. Freeman, Beall, Whiley, Wollstonecraft, House, [prom. in 1813,] Walbach, A. B. and Geo. Armistead, Wilson, E. Humphreys; (Lieuts.) *Hanks*, Gates, Gansevoort, Proveaux, Bennett, E. A. Allen, Darragh, Lomax, Sat. Clark, Fay, M. Mason, Vandeventer, Fitzgerald, Ewing, Sands, T. J. Beall, and Ezra Smith.

Of Light Artillery: (Capts.) Macpherson, J. N. McIntosh, McDowell, L. Leonard; (Lieuts.) Melvin, Thornton, Stribling, Boisaubin, Ketchum, Arms, Irvine, J. R. Bell, Murdoch, Randolph, W. F. Hobart, and Sumter.

Of Light Dragoons: (Capts.) Helms, Hayne, Halsey, Cummings; (Lieuts.) Littlejohn, Haig, Hukill, Boardman, Kean, H. Whiting, and Birch.

Of the 1st Infantry: (Capts.) J. Whistler, Heald, Clemson, Swan, Pinkney, Stark, Hughes, Baker; (Lieuts.) Whitlock, Symmes, Knight, Kingsley, H. Johnson, Brownson, T. Hamilton, Albright, Ostrander, Perkins, Helm, Bryson, Page, Campbell, Stansbury, Vasquez, and Bissell.

Of the 2d Infantry: (Capts.) Boote, Campbell, Arbuckle, Carson, Pratt, Brevoort, Miller; (Lieuts.) Chamberlin, Luckett, Peyton, Pemberton, Ware, Davis, Brownlow, Wirt, H. Bradley, Willis, Villard, and Bliss.

Of the 3d Infantry: (Capts.) Bird, Nicks, Atkinson, Woodruff, Clinch, Dinkins; (Lieuts.) H. G. White, W. S. Hamilton, Butler, Chotard, Herriot, Laval, and Morley.

Of the 4th Infantry: (Capts.) Cook, Prescott, Snelling, Barton, Adams, Fuller; (Lieuts.) C. Larrabee, J. L. Eastman, Peckham, Gooding, Bacon, and Greenhough.

Of the 5th Infantry: (Capts.) Bankhead, Johnson, Brooke, Whartenby, Chambers, Dorman; (Lieuts.) Opie, R. H. Bell, R. Carson, Jamison, and Saunders.

Of the 6th Infantry: (Capts.) Beebe, Machesney, *Nelson*, Arrowsmith, G. Humphreys, Walworth, Muhlenberg, Sterry; (Lieuts.) Ed. Webb, Shell, and Thompson, [since killed in Florida.]

Of the 7th Infantry: (Capts.) Blue, Oldham, Doherty, Cutler, Z. Taylor, [since President,] Overton, C. Nicholas, A. A. White; (Lieuts.) Broutin, Robinson, Waide, Vail, G. O. Allen, and E. Montgomery.

Of the Riflemen: (Capts.) Sevier, McDonald, Forsyth, H. R. Graham, Visscher, Hays, *L. Morgan*, Appling; (Lieuts.) Josh. Hamilton, Patterson, Ramsey, and Smyth.

No more gallant and accomplished officers than these could be found in any army in the world. When the appointments were made for the new regiments then to be raised for the war with Great Britain—without commenting on the de-brigades, regiments, &c., will now be generally conceded. But they were left to acquire future rank and position for the service of their country, by the slow occurrence of vacancies in their own corps, or the adventitious rank which those who survived could win in the battle-field, by *brevet.* May it not be fondly hoped, that they, who in their lowly stations thus pledged their lives for the chances of distinction, will not have lost all their stake, but that their names may yet preserve some lustre in the well-filled record of their country's heroes?

The contrast of the prowess displayed by our naval armaments, in comparison with that of our land forces, in the war of 1812, has been glaringly presented to the nation. The causes, after what has been said of the treatment and construction of the army, may be easily comprehended. In the first place, the officers of the navy, in their several grades and regular promotions, had been left undisturbed by the government, and consequently as a corps, were older in commission, and therefore superior in discipline. In the next, the care taken of the navy by the government, at the commencement of the war—even, according to the wish of the executive, to keep it out of the conflict, and the treatment of the army—pushing its unorganized and undisciplined levies into the enemy's country—even permitting them, in detached parties, to come into collision with the garrisons of an old and well-practised opponent, presents a most remarkable contrast. The interesting point however, in the contemplation of the two arms on that occasion for our future profit, is—that the corps of the navy, exhibiting at that time such superior efficiency, had been, and was, in its integrity

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pression of spirit to which these were subjected, individually, on seeing men ignorant of the service, and totally uninstructed, appointed to grades above them—the surprise is, that the government, for the sake of bestowing the patronage otherwise, could be induced to forego the *advantage* of employing such qualifications as were obviously possessed by these men—so indispensable for sustaining the honor of the government and the country. But all of these in the list given—with the exception of staff commissions, which gave them no command—were left as they were. Several, including some who are not named, threw up their commissions. A few cases occurred like that of a lieutenant of the 3d infantry, who resigned in November, '12, and in March, '13, was appointed a major of the 10th; and at the reduction of the army was retained a lieut.-colonel of the line.

The few (of the officers then in service not named in the list preceding) who were honored with higher commissions in the new regiments, were *all*, who were living, retained by the Board of Generals, at the reduction of the army, with their advanced rank. And several of those named in the list, who were subsequently advanced, were also retained in the same manner. But it will be admitted by all who have any personal knowledge of the officers passed over, that any of them—referring to the greater part—would have been equally distinguished, and rendered as valuable service to their country, if the same opportunity had been afforded them, by the same appreciation of their merits. A consideration of the highest importance—indeed the only one—for it is not pretended that these officers had any *claim* individually, beyond their right to promotion in their several corps—is the confident belief and reliance, that in the future engagements with the enemy, very different esults would have been accomplished.

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and unity, left intact by the government, and free from interpolation. After its first victories, under its old captains, the influence of its officers was sustained by the sense of the nation. The ambition of citizens having political influence to gain commissions on the ocean, over the heads of officers in service, did not prevail, as in the army.

It might be supposed, that there are occupations and conditions in civil life, which better adapt our citizens to an immediate transfer to commands in the field, than there are for commands on the ocean; but this would be a gross mistake. The service in our mercantile marine, which pervades all corners of the earth, and the seamanship of its ship-masters and their mates, furnish good qualifications for the command of men-of-war. The exploits of some of our privateersmen have given ample proof of this; but political, or rather, party influences, do not much prevail in sea-ports, nor in our mercantile classes.

At the conclusion of that war, when the great reduction of the army took place, the organization of a permanent peace establishment was finally adjusted in the councils of the nation, having a wise view to the most effective preparation for future war. The theory of a distinguished statesman, who succeeded to the direction of the war department, was adopted,—to preserve such a general staff, and a skeleton of corps for the line, as could, in the event of war, be most promptly enlarged to a full and effective war establishment. But what has been exhibited on the occurrence of the event contemplated? When the late war broke out, and the legislative power was called into action, the whole theory, so obviously suited to the purpose then to be effected, was almost entirely disregarded. After the provision for recruiting an increase of the rank and file, the 'skeleton' was left to act by itself; and when officers were required for the additional forces to be raised, the officers of the old corps were left as they were, with their existing companies and corps!

We had then, besides the corps of the general staff, fourteen regiments in service; all the officers of which were more regularly trained and accomplished than those of any other army in the world,—for no family influence, royal or noble, had ever interfered with their just advancement—(the rules of promotion having been enforced by the Senate.) The battles of *Palo Alto* and *La Palma* had been fought, when there were *eleven* new regiments added to the army—which were officered, as of old, from civil life! The result was, that out of two hundred and sixty-four appointments, of the rank of field-officers and captains, but *seven* were taken from the army,* and less than twenty selected from the thousands of retired officers of great merit and experience; some of whom had been distinguished in the field; and would eagerly have engaged in the new war, with the mere advancement in rank to which they were entitled, granting that they were not made subordinate to those who had no pretension to the rank conferred. Of the volunteer regiments, the officers were principally chosen by the volunteers themselves, and they, were commissioned, of course, by the state governments; but there were more men of military education chosen for the volunteers, than there were in the regular regiments.* Some of those from the army, who received appointments in the new corps, were of undoubted merit; but they were all indebted to the favor of influence "at court" for their preferment.†

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* These were Colonel Andrews, (Paymaster;) Lieut.-Colonel Fremont, (Second Lieut. and Brevet Captain of Topographical Engineers.) Lieut.-Colonel Graham, (Brevet Major of Infantry, of thirty years' servic[illegible] Lieut.-Colonel Johnston, (Cap-

Thus the executive yields up the power to carry on a war more efficiently, with less expenditure of life and treasure, more successfully, and therefore with greater popular applause, to the apparent necessity of conciliating the friends of the Administration in the legislative branch, who should be friends only to the cause of their country;—giving up the control of appointments to perform military duties to those who have as little capacity as they have right to interfere—no responsibility when they do, and no motive (with exceptions which only prove the rule practised) but the motive of personal advantage or gratification—a motive very inconsistent with, and in many cases even hostile to, the good of the service and the object to be accomplished. Even the additions made for these levies, to some of the staff departments, seem to have been made on the principle that for raw and new-raised troops, the new quarter-masters and commissaries should be equally raw and unpractised, as if they would thus be best adapted to the service required! (The newly-created generals, having divisions and brigades to com-

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tain Topographical Engineers;) Major F. Hamilton, (a first Lieut. of Dragoons;) Major Talcott, (first Lieut. of Ordnance;) and Major Woods, (a (Captain of Infantry.)

* In the Virginia regiment of volunteers all the field-officers were graduates of the Military Academy—Colonel Hamtramck, Lieut.-Colonel Randolph, and Major Early; and in the famous second Kentucky regiment, the same—Colonel McKee, Lieut.-Colonel Clay, and Major Fry; and others, whose names are given in the lists of volunteer regiments annexed to Gardner's Dictionary.

† The confusion in the assignment to the different *grades* in the army, of those who had formerly served, and were so lucky as to get commissions, might have been expected from the manner of their appointment—former captains to companies, and lieutenants to the command of regiments; but, as it were the purpose to humble the pretensions of rank, and degrade the claims of former service, the government, in ordering the settlement of rank among those appointed to the *same grade*, departed from a long-established usage of service, and even violated an article of *executive* regulation,—to wit: "If the parties have served in the army or marine corps, and have been disbanded, the rank held by them respectively is to be regarded next to rank in actual service at the time of their appointment." [Art. II. Sec. 4.]

mand, did not select their personal staff on this principle.) Fortunately for the reputation of the country and the fame of her arms, the direction *in-chief* of any of our armies in the field was not given to newly-appointed commanders, either raw or rusty;* but was left with the generals, who were in actual service, having the recognized and unquestionable right of command.

What is the secret of the so unvarying good conduct and prowess displayed by our *regular* troops, in the battles of the Rio Grande (and no other description of troops was there), conquering a superior and well-organized force, commanded by the ablest of the Mexican generals? It is, that every officer in our line, of all the grades of rank, was conscious that he held the precise position to which he was entitled,—no room being left for any impulse, but that of displaying to his superiors his best ability and gallantry, and winning for his corps and his country the greatest triumph.

If the military establishment of the republic had been kept distinct, and men of political ambition had not been translated to it, there would never have been any interference by military men with *political* affairs; and our peace establishment, as we have endeavored to show, could have been made amply sufficient for any future military service, which would ever be required on this continent. A military institution to be efficient, must always be conducted on principles essentially repugnant to those of free government; and therefore the profession of arms ought, under such a government, to be kept carefully distinct, as well as subordinate. The case of Washington, it was admitted by all, stood alone; and could never be made a parallel for the position of any future military chief, under the Constitution. But as statesmen have committed the first error, and politicians have adopted the last, for the facility of popular management, it only remains for us to abide the consequences.

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* The attempt was made even to do this!—The purpose of these notes and observations must not be misunderstood. The writer certainly has no design to sustain a claim to precedence, for any of the *civil* officers of the country, founded on military distinction. On the contrary, the inference is fairly deducible, that, as he conceives, every profession requires preparatory training. He believes in the force of Mr. Jefferson's saying, that "you might as well make a sailor of a cock, or a soldier of a goose, as a President of a mere military hero." Though he does not believe it had a just application to the hero of New-Orleans, to whom Mr. Jefferson at the time referred. Andrew Jackson, though "a military chieftain," had much experience as a statesman. It is a duty, however, to add, that the truth of the saying has been amply confirmed by the last military occupant of the chair of state—in the exhibition of unfitness which he made to the observation of both the great parties of the country;—and this by one whose achievements in the battle-field, on the records of his country's history, will stand gloriously conspicuous through future ages; while the circumstance of his elevation to the chief magistracy, among the names of the numerous Presidents of civil distinction, will be passed without notice; or only be noticed to regret the dark shade which it has thrown over the lustre of his fame.

REMARKS.

It has long been an impression of the writer, that on the reduction of the army, at the peace of 1815, the *esprit du corps*, so highly estimated and carefully cherished in every service but ours, might have been made available, not only as a future incentive of pride and emulation in the regiments retained, but to add greatly to the inducement and facility of enlistment among the people of the several states; so essential a want, whenever the crisis demands a sudden increase of the regiments to a war establishment. It was simply by preserving the *numbers* of the distinguished regiments, and those from which distinguished officers had arisen; and by arranging the officers retained, as near as might be, to their former *numbers*. Though the time has elapsed when this can be done, yet every reader who has been in the service, will take an interest in the following *projet:* which, it will be perceived, has a double relation to the states from which the regiments, were originally raised, and to the distinction they acquired, both by their members individually, and as corps.

Numbers to be preserved on the Colors and Buttons.	Distinguished Officers of the Corps up to the 25th Regiment.	States from which raised, and from which to be filled.
1. 8th	(Pike) Bissell—Pinkney—(Cumming,)—D. Baker—Twiggs, &c. [Those of the 44th. W. O. Butler—Call—&c., could be included.]	[Old corps.] Georgia, and South-Western.
2. 24th	(Cushing—Gaines—Boote)—Arbuckle — Fr. Armstrong—Robert Butler—Pitt—Lawrence, &c., [Those of the 18th could be added.]	[Old corps.] Tennessee, and Western.
3. 12th	Atkinson—(Preston)—Clinch—W. S. Hamilton—Nicks—W. Morgan, &c. [Those of the 10th and 20th would belong here.]	Virginia, North and South Carolina.
4. 21st	(Boyd--Ripley)—James Miller—Snelling—(Grafton)—Peters—Plympton—E. Kirby, &c.	Maine, Massachusetts, North and Western.
5. 22d	Brady—King—(G. Gibson) — Chambers — Brooke (Vir.)—Whartenby, &c. [Those of the 14th and 16th could be added.]	Pennsylvania, Delaware, Maryland, &c.
6. 13th	(Chrystie)--Wool—(Nelson)—Machesney—Kearny—Thompson, &c. [Those of the 15th and 23d, H. B. Armstrong—Worth--Belknap, &c., would belong here.]	New-York and New-Jersey.
7. 17th	John Miller—(J. B. Campbell)—Croghan—Jesup—Blue—Cutler—Z. Taylor, &c. [The 19th also would belong here.]	Kentucky, Ohio, and Western.
9. 11. 25th Scott's Brig.	(Aspinwall)—Leavenworth—McNeil--Foster—Watson—Ketchum—Brown, &c.	New-Hampshire, Verm't., Rhode Island, and Connecticut.
Rifle.	T. A. Smith—McDonald—(Forsyth, L. Morgan)—Appling—Bradford—Riley, &c., &c.	Generally Western.

It will be perceived that the colonels of six of these nine regiments would take their places appropriately. As two appear in the 5, 22d, *King* would take the 6, 13th, and for the same reason *McDonald*, (who should have remained in the rifles). the 2, 24th, and *Nicholas* (b. t.) the 9, 11th, 25th. Then the lieutenant-colonels and majors could have been arranged—being all the field-officers first retained—as follows: (Major Many, as well as Bankhead and Overton, being left in the artillery)—

	Colonels.	*Lieut. Colonels.*	*Majors.*
1, 8th	Bissell	Pinkney	Gardner.
2, 24th	McDonald	Arbuckle	Lawrence.
3, 12th	Atkinson	Clinch	Brooke.
4, 21st	James Miller.	Snelling	McNeil.
5, 22nd	Brady	Trimble	Chambers.
6, 13th	King	Brearley	Wool.
7, 17th	John Miller	Croghan	Jesup.
9, 11, 25th	Nicholas	J. L. Smith	Leavenworth.
Rifle	T. A. Smith	Hamilton	Appling.

The artillery (in which arm the distinguished officers were innumerable) might have been retained in *five* battalions of eight companies each; one battalion being of light artillery, with one colonel as chief of artillery. And if the rifle regiment had to be reduced, one of the regiments of infantry should have been designated for the rifle and light infantry service and drill.

In five years, i. e. by the year 1820, six of those colonels were changed, and all the lieutenant-colonels and majors; the cast could then have been made of the field-officers remaining in the line, by interchanges or transfers when the promotions took place, as follows:

1, 8th, Bissell, Nicks, and A. Cummings.
2, 24th, Arbuckle. Lawrence, and Baker.
3, 12th, Clinch. Brooke, and Dinkins.
4, 21st, Snelling, McNeil, and Gray.
5, 22nd, Brady, Humphreys, and Whartenby.
6, 13th, King, Wool, and Muhlenberg.
7, 17th, Pinkney, Taylor, and Cutler.
9, 11, 25th, J. L. Smith, Leavenworth, and Vose.

Rifle regiment—as regularly advanced: (if Appling had been retained in his corps, he would probably have remained; and perhaps McDonald also.)

If this organization and arrangement had obtained (with the same officers who were in service), the reduction and derangement which took place in 1821 would not, in all probability, have been passed by Congress. It is easy to perceive how much more readily inclined the country and its representatives would have been, to preserve the distinguished *numbers* of these regiments, and to resist their reduction, with the powerful influence they would have had from the pride of the states. In the event of war, when the increase of the establishment became necessary—under the same influence, and the influence of wisdom in sustaining the best interests of the country, the advantage would have been secured to the existing establishment, of enlarging the corps on these numbers, and even, with the omitted numbers, of forming a brigade of each. The officers of these could have supplied, at least, the field-officers and captains of seventeen full regiments. From the efficient officers who had *retired*, during a long peace, from the army, after a public notification had been issued by the war department, a selection, for reappointment in the enlarged or added corps, could have been made; with a stipulation, by legal provision, that no retired officer should be appointed to a higher grade than that he would have held had he continued in service.

Previously to such enlargement, on the first occurrence of a war, as in that of 1846, though but few of the officers of the old corps continued in the field, and the *esprit du corps* became, as it were, traditional—if the same prowess and gallantry displayed by the officers then engaged had been achieved under the organization proposed, with the designated numbers preserved—what might not have been the enthusiasm felt and expressed throughout the country for the accumulated glory of these corps!

A political objection may be raised to this plan of organization—that it might lay the foundation of sectional jealousy and division; but it will be found, on further examination, that it would result in the reverse of an objection, and produce advantages. In the event of a "rebellion," it would furnish the means of avoiding the use of that corps of troops which may appertain to the section involved; and in the case of servile "insurrection," vice versa.

The chief officers of the several departments of the government, under the President, are selected and appointed in reference to the different sections of the country. There is sufficient unity and nationality in the Supreme Court, though strictly constituted from the several sections of the Union. And in the cabinet council, there has been no want of nationality, though in its formation the sections are regarded.

Excepting the navy, whose organization seems best adapted to its destination, the army is the only institution in the *organization* of which the sections are not regarded; and is, of course, without the benefit of sectional interest in its preservation, and without that powerful incentive in the separate corps to noble emulation and achievement.

There is another method by which a more effectual inducement and facility could be given, throughout the interior of the country, to enlistments, and thereby effect a two-fold advantage—first, to secure its influence for the great desideratum of more rapid enlistments; and secondly, to improve the *personnel* of the ranks, and thereby lessen the enormous evil of desertion,—an evil for which no remedy, in the least effective, has ever been devised. It is, to select, out of the forty sergeants and non-commissioned staff of each regiment, three or four, annually, for promotion to brevet second lieutenants, the selection being made on the recommendation of their commanders. It is well understood, that the officers of the army, generally, are opposed to this measure; they say, that old non-commissioned officers, of great merit, are rendered valueless when made commissioned officers. This may be true, in reference to the old sergeants; but not to the young, who have sufficient education. If you expect ever to draw into the ranks of your regular regiments the young men of spirit and ambition, who are natives of the soil, you must furnish them some inducement and opening for the exercise of their ambition. Furnish them, at least, the prospect of meeting, in a portion of the ranks of each company, a few of their own caste, with whom they can associate, without feeling that they have degraded themselves to the level of the slaves of the old world, or the refuse of our populous cities; and can thus be saved from the insuperable inclination to desert on the first opportunity. The military institution is necessarily the same in all countries; but it is believed that, for some years past, there are more non-commissioned officers in the British service annually promoted in the same number of regiments than in ours. It is an example which should not be contemned in the government of a republic.

Whether, in connection with this proposition, the thought could be entertained of limiting the Military Academy to the instruction of cadets solely for the scientific corps, inclusive of the artillery;—whether, in that case, a surplus number would be requisite, from which a selection could be made, leaving a portion to be disbanded at every annual examination—or otherwise, whether such an organization could be given to the scientific and staff corps, as to commence their first appointments with the grade of captain, or first lieutenant, in each; so that all vacancies might be filled by selection of the most competent from all the subalterns of the army—with, perhaps, a previous trial "on extra duty," as formerly in those corps—are suggestions which may be left to the future influence of military intelligence and economy over the law-making and executive authorities.

A great objection to any change touching the organization of the army, or its system of government, is the vacillation it causes, in addition to that already of record, in the legislation of Congress; by which changes heretofore, and the mode of carrying the laws into effect by executive acts, the consequences have been, to depress the pride of the corps affected, and injure the spirit and efficiency of the army. An exhibit of all the acts passed by Congress for changes of organization, increase and reduction of the army, brought together in a *tabular abstract*—as will be seen prefixed to the *Dictionary of the Army* under notice—will surprise the reader, whether a military man or statesman. The present organization has continued longer than that of any former period; and having shown its efficiency so admirably through the Mexican war, in the general system of the staff departments, as well as in the different arms of the line, it will evidently be best to preserve it as it is. Some minor reforms, and perhaps reduction, could be wisely made in some of the staff departments;—and having now in the service, eight general officers of the designation of "major-generals"—(there were at the end of the war 14, and including the additional forces, 21)—there is obviously requisite a separate designation for the general commanding the army. There is also indispensable, a fixed and unequivocal rule, having the force of law, to define "brevet rank," and the rank conferred by staff and former commissions. The orders and regulations on this subject, at present in force, are in collision with the former usage of our service, and the usage of the British service (having a similar article of war), for centuries; and, what is more serious, they are, in some measure, in conflict with the law in our articles themselves. It is certainly important to provide, that when two gallant officers shall meet "on detachment," an expression now of ambiguous construction, there should be no room left for any disputation on their relative rights of command.

Art. III.—THE TELEGRAPH.

No. II.

THE discovery of the distinctive properties of electro-magnetism, as evinced in their adaptation to telegraphy, was the introduction of the elements of a new science, of extraordinary scope and marvellous utility. Much that philosophy had previously taught upon the subject of electrical phenomena had to be revoked, modified, or wholly explained away; and vague theory and conjecture were scattered to the winds, as, unheralded by long preparation and learned display, practical genius brought forth the splendors of this magnificent wonder. It is not singular, therefore, that a question should arise, as it has done, in which the originality of discovery and right thereto are disputed and undetermined; that the claims of the real author should be slighted for the empty pretensions of another; and that nations, thrilled and gratified at every fresh revelation, should deem it not beneath them to contend for the high honor of having given birth to the illustrious discoverer. It may well be asked, what discovery or invention, whether in art, in science, or physical pursuits, has not been the source of jealousy and dispute among contemporary aspirants, sometimes sustained and embittered by all the arrogance and virulence of national pride and prejudice? The historian or the annalist, whose duty it is to sum up the pretensions of claimants, and impartially discriminate on the merits of each, is greatly perplexed in his task, and is often wrought upon by influences of which he is not sensible, and again is led to discard the most incontestable evidence, as if to mark his preference or display his bias. Hence the inquirer after knowledge, gleaning information from the labors of others, is frequently left to his own unaided opinions and resources in fixing the date of an epoch or event, or establishing a priority of right in discovery—in either of which he is liable to repeated error, when, as in the present instance, the elements which go to make up the claim have flashed from many intellects through a long series of years, and been caught up and transmitted to posterity in mere scintillations. Let those, however, who delight to weave intricacies for the pleasure it affords, continue to throw doubt and mystery around a plain truth, and accord the honors to another which are due to Professor Morse. Our present business is with the details of a great science, not the features of a personal controversy.

The discovery of electro-magnetism aroused the curiosity and the interest of philosophers who had filled the world with their fame, and who had ceased to think that the physical creation held a secret not familiar to them. They were startled and entertained, because there was nothing vague or uncertain in it. It was one of those brilliant achievements of science which marks an era, and precedes the breaking up of a grand fountain of knowledge. It was a discovery unassailable; and bore upon its surface a complete refutation of fraud, and every guaranty against disappointment. It vindicated the only theory propagated for it, and justified, by practical tests, the expectations entertained of it. Philosophers then asserted, that if the distinctive properties of electricity really resided in that body as demonstrated, (of which they had the soundest proof,) and were identical with atmospheric lightning, the establishment of a system of telegraphy by their agency was not the only employment to which they would be put, or that be the only invention to which genius would apply the discovery. This hypothesis, so promptly advanced and so well sustained, stimulated the most active inquiries and provoked the profoundest research. The world was still dazzled with the conquests of steam, and, it should be thought, would have hardly been prepared to abandon any of their partiality for this mighty agent, however extraordinary the plausible features of another discovery. Steam had accomplished much, and its exploits still left unanswered the questions, to what limits it could be extended as a motive power, and what utility it might possess as a labor-saving agent and an expedient economist. But the period was auspicious, and fertile of wisdom and enterprise. Thrones had ceased to totter, and dynasties to arm against each other. Peace had begotten a spirit of industry, and nations had begun to recover from the evils of exhausted exchequers. Steam had already caused continents to be begirt with bands of iron, and hemispheres to be interlocked by the embraces of the huge steamer. The age was ripe for experiment, and here was a discovery for which there was promised inconceivable things. The wildest enthusiast had never valued steam beyond the considerations which attached to it as a motive power, and economist. From the electro-magnetic discovery more was expected, because it was of a nature to lead investigation into a hundred channels, and to encourage enterprise in seeking to unbar the door to the vast treasures which the science still evidently concealed. And while influenced to make these forays, genius barely paused to ponder on the extent of that unoccupied field it would have in which to adapt its discoveries.

However seemingly practicable may be a theory, if we strictly conform to the laws that should govern it, we always encounter a number who aspire to deduce from it a capacity even at variance with its nature or fundamental character. Some were not content with assuming or believing that electro-magnetism, or its affinities, were destined to operate a great change in our pursuits of knowledge, and in supplying certain requisites indispensable to human progress. In consequence, many failures have been the result of much time wasted in fruitless attempts to extract virtues from electricity which it does not possess; but every such instance has been attended with advantage. The accurate philosopher has been emboldened to pursue his object with more confidence, while such as have wavered between reason and transcendentalism have imbibed experience by the example, and tread warily towards the goal of their ambition.

So that, passing over the lapse from 1832 to the present time, without noting the futile experiments of that period, let us at once proceed, and follow those who have gained an entrance into the inner chambers of the science, and occasionally send out a ray disclosive of the wealth almost within their grasp.

Refined art, next to mechanics, is deepest indebted to the discovery of electro-magnetism. The working of metals by electric currents is of recent origin. As early as 1804, electro-gilding had been practised in France and Germany, and shortly after, in England; but the idea of making castings by electric currents did not occur to philosophers until after the introduction of Daniel's battery, to which the art was incidental. Russian metallurgists, who have been among the first of any scientific age, maintain that the discovery of producing electro-castings belongs to them—that the subsequent successful experiments of the English were the results of that knowledge imparted to them by their more forward northern neighbors. Without disputing as to priority of claim, for we have no data on which to predicate a positive opinion, it is enough to state that until the invention of Daniel's battery, the improved metallurgic art, if known at all, was practised to a very limited extent. Jacobi and Spencer solved the difficulties which still beset the discovery, notwithstanding the principles involved in it were now generally understood. They simplified these principles to a method; and philosophy had little to do now but conform to this method, and mechanical skill to be controlled by it.

But one branch of metallurgic art was not to monopolize all the advantages which had flowed to it by the discoveries in electro-magnetism. After successful experiments in electro-plating, genius advanced another step, and produced multiplications of letter-press—as metal type, wood-cuts, zinc engravings, &c., which is now conducted as an art itself, called electro-stereotyping. Spencer predicted many improvements in this department, and averred that copper-plates would ultimately be multiplied; but until quite recently, neither ingenuity nor skill was able to overcome the difficulties which trammelled the attempt.

The main obstacle to be surmounted was in the duplication of the delicate lines of the plate. The great cost of the plates, in the first instance, would not justify private enterprise in any extended system of experiments; and government patronage seems to have been wasted, in some cases, on unworthy objects, and in others without compensatory reward.

Meanwhile, inquiry was directed to the thermo properties of electricity, as applied in the countertyping of animate and inanimate nature, and in the transfer of natural colors. At a late sitting of the Austrian Academy of Science at Vienna, this whole subject, in detail, came up for consideration. Following the discussion, Herr Von Auer read a paper on a newly-invented process of printing from all sorts of objects with comparatively plain surfaces. Among the articles mentioned, which had been truthfully copied, were plants—some of them in flower—embroidery, etched agate, insects, fish-scales, &c., and objects of a larger surface. The speaker named the process, "*Naturselbsturuck*," (printing from nature.) The discovery forms an era in the pictorial illustration of works on science and art, the future importance of which cannot be foretold. Herr Von Auer did not mention at the time that the process required or employed electrical agency; but a French *amateur*, who has facilities for knowing, declares that electricity, in some form, is absolutely essential to its success. While thus abroad experimentalists are giving their attention to the reproduction of living and inanimate objects on canvas and on plates, by electrical agency, at home we have minds intent on the same end, though their schemes vary, and their modes of procedure are dissimilar. James Campbell, Esq., of Ohio, in a paper contributed to the *Scientific American*, remarks on the process of obtaining colored daguerreotypes. He says: "As electricity is a powerful agent in decomposing chemical compounds, it might be naturally inferred that it would aid in this process. I have often tried it, but without, until lately, any very important results. Dry chloride of silver is not decomposed by electricity, yet its decomposition by light and other agents may, by it, be much accelerated; and I did not at first use a sufficiently powerful current." Undeterred by failure in his first essays, he renewed his experiments in the use of electricity, until his object was accomplished. He then remarks: "These pictures are developed under a hard, tough enamel of chloride of silver, cannot be rubbed out by the fingers, and will even bear considerable buffing; and, if the enamel is thick, are improved by the operation"—or hard usage they receive.*

These discoveries, yet in their infancy, are destined to work miraculous results in art, in science, and in artistic design. Their features of practical utility afford equally flattering promise.

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* We copy from an exchange the following curious incident. A little girl was standing at a window, before which was a young maple-tree. After a brilliant

But to return to electro-metallurgy. In order to duplicate, it is required that the deposited metal shall have all the cohesive properties of the analogous plate. If, for instance, a deposit of copper were made upon a clean copper-plate, and cohesion was unobstructed, the result would be, particularly if the plate were elaborately engraved, a conglomerated and inseparable mass of metal. If cohesion were obstructed, so that the deposited metal could be readily separated from the plate, that obstruction might cause mutilation or total destruction of the plate. These were the considerations against which metallurgists in vain brought skill and science to bear; for in obviating one difficulty, the other would supervene. Mr. Smee proposed the use of that thin coating of air which adheres so closely to highly-polished metals, as may be observed in an attempt to wet a finely-polished knife-blade. But this process was finally pronounced uncertain and precarious. Air-bubbles could not be excluded; and the plates were therefore constantly liable to mutilation. The next invention, and that adopted in the ordnance department of Great Britain, was the coating of wax. The plate is oiled, and carefully wiped with soft bread. It is then heated to a certain temperature; and a cake of wax being pressed against its edge, will congeal, and flash over the plate in an almost imperceptible film. The plate is then wiped with a linen rag, free from lint; and being cooled, is ready for the vat. This process, although superior to Mr. Smee's, is by no means infallible, or even generally safe or accurate. The interposition of heterogeneous bodies to prevent impact cohesion of homogeneous bodies, proves as powerfully adhesive sometimes as that cohesion itself. This we see in the employment of cements; and wax is a primary ingredient in these compositions.

It was reserved for American genius to discover a method and an agent free from these objections. We shall not follow Professor Mathiot in the details of his plan. Suffice that for wax and the air coating he substitutes iodine—on the efficacy of which he remarks: "If but one ounce of copper be dissolved from a square foot of ordinary plate, a very heavy deposit of sediment is left, (sometimes five per cent.,) and the quantity of wax which may be applied to a plate, and fail to prevent sticking, is ten thousand times more than the quantity of iodine

flash of lightning, a complete image of the tree was found imprinted on her body. This is not the first instance of the kind.—*Newark Advertiser.*

A Philadelphia artist has caught up an idea which this incident suggests, that not only can objects with plain surfaces be transmitted to plates, but objects with uneven surfaces to canvas. He has instituted many experimental tests, and is sanguine that he will ultimately succeed in being enabled to announce still another chemical discovery.

which prevents it." His is indeed a valuable discovery. It will lead to a closer affinity between metallurgy and the fine arts, augment the production of copper-plate engravings by a series of duplication, and bring into play faculties of skill and intelligence hitherto unknown to the domain of physical and experimental knowledge. There is a peculiar analogy in the discoveries of Von Auer, Campbell, and Mathiot, inasmuch as, while they are distinct branches of the same art, their directions are so similar, and the desiderata they are well intended to supply, are so momentous and closely akin in their mechanical features. "To test," says Mr. Mathiot, "the effect of the chemical method of preventing adhesion on the sharpness of the engraved lines, an engraving was seven times successively transferred from plate to plate, when the closest inspection failed to show any inferiority of impressions from the last plate, as compared with those from the first." Electro-plated type and electro-duplicates of copper-plate engravings are used in many of the printing-offices of the United States, and embellish the pages of some of the most eminent magazines for pictorial illustration in the world.

The speculative mind did not, as we have remarked, confine itself to these scientific pursuits only. While some hastened to demonstrate the ascertained properties of electricity and their value to mechanical art, others plunged deeply into the more mathematical labyrinths of the discovery, and have sought to realize projects hardly less than utopian. Among such, were those who believed that an era had arrived from the date of which should be chronicled a complete revolution in commerce and navigation, in the intercourse of nations, in determining natural laws which had defied all previous theoretical and experimental knowledge, in the mode of ascertaining natural phenomena, and in the solution of questions involved in the mysteries of the physical creation. Morse had opened wide the door, and an unreserved welcome was extended for visionaries to enter, as well as philosophers and philanthropists. Even, it was said, a formidable curative of disease would be discovered in the electrical properties; the seas be explored by trained lightning, and made to yield up lost treasures; the earth be disembowelled by engines of handicraft, and the air traversed in electro-motive cars, as it is now cloven by the wires of the telegraph. Some ascended higher in the scale, and gave to electricity a tangible basis for the determination of all solar problems. Nay, it would be difficult to say, indeed, how far theory was carried, and how far it is still carried. Civilization seems at one bound, by a single discovery, to have vaulted over centuries, and the experiments and developments of ages, towards the zenith. "In addition to what electricity is now performing as a messenger," moralizes a paragraphist—"one swifter than those of the gods, and more reliable than the boasted Ariels of poets—when we come to consider that it can be drawn cheaply from its hiding-places, and made to propel land and water chariots, animate manufacturing mechanisms, become an agricultural laborer and a household drudge of all-work—we may safely say, the acme of human science has been attained, and the phases of time, and the employments of man, totally and eternally changed."

The knowledge now obtained, that soft iron could be rendered intensely magnetic by the galvanic or voltaic pile, led mechanicians to experiments in transmitting the power thus generated and recovered to motive machinery. Professors Henry and Page, of the United States, were among the first to turn their attention to the subject, and Henry was the first to bring the results of his labors to anything like a satisfactory conclusion. The principle in all the experiments made was much the same; that is, one or more magnets were located as fulcra, on which others, generating power, were fixed to turn. The period of this invention was not auspicious. The country was distracted by domestic strife, arising on the slavery question; and the government was slow in taking into consideration the merits of any scientific discovery which promised nothing towards conciliating political elements. We believe a committee of the national Senate was appointed to examine and report on the efficacy of Mr. Henry's projected motor; but Congress never took a step farther, and the whole thing is still in abeyance. This motive agent was of simple construction, but of vast energies. It was arranged with an electro-magnet in the manner of a balance-beam above the opposite poles of two permanent magnets, and kept up oscillation by alternately breaking and renewing the connection with the battery. Professor Page's plan* was to produce rotary motion by arranging two circles of magnets, one within the other, and with the faces of those which revolved so contrived as to sweep close round the immovable circle, but without touching it. A series of cut-offs regulated the supply and exclusion of the electric currents, so that each face of a revolving magnet was pulled towards each of the fixed ones, and as it passed, was pushed away to the next, and so on. The main objection with this, as it must be with all projects in which proximity instead of contact is sought, consisted in that unobviated difficulty, namely, that electro-power operates within a short space—that a power which is ascertained to be equal to 2000 pounds by cohesion, is reduced to comparatively nothing when removed to a proximity of only a few inches. Jacobi, in 1838, propelled a small shallop, on the river Neda, by electrical force. His speed with the stream was four miles an hour, and three against it. The mechanism consisted of four fixed electro-magnets, and the same number of revolving ones, to which the axle of the paddle-wheels was attached. His battery of sixty-four platinum plates, each with a surface of thirty-six square inches, was charged with nitric and sulphuric acids on Groove's plan. This attempt to supersede steam was pronounced a failure. But let us not forget that the wisest heads of the nation combined in pronouncing the effort to navigate by steam a complete abortion. This sage verdict was passed to the detriment of genius half a century ago; but, alas for their predictions, that "abortion" has proved an inestimable and practical blessing. That little or no advancement has been made in adapting electricity to navigation, we admit; but science has barely instituted a first attempt to convert it to marine purposes. The obstacle to be surmounted, we have adverted to. It is paramount; but is genius so beggared of resources, or science so completely exhausted of its secrets, that no remedy shall be found? So strange a proposition would sound like an absurdity. An electro-magnet, with its armature, is capable of a lifting power of 3000 pounds. By the interposition between the magnet and armature of a piece of tissue paper, that lifting power is reduced one-third; and the lifting power, by the removal of the armature a distance of two inches, is destroyed altogether. From this it will be seen how important is the question of space, and the proximity of the power-generating members. Recently a discovery was made, which has the facility of partially restoring the power so easily lost, which consists of a core of soft iron being made to play in the centre of a helix, like a piston-rod, but without the piston playing in its cylinder. An apparent increase of range is thus obtained, and a *stroke of more than twelve inches realized!* If this be an established fact, we have no reason to despair of seeing electrical mastodons of the ocean ploughing the surges of every sea.

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* The author is in doubt whether Prof. P. was the original projector of this plan.

But electricity has been beneficial to commerce in another sense. It has been made to subserve science in determining the law of tides, in basing calculations of latitudes and longitudes, and correcting the mariner's chart and the navigator's compass.

"Astronomy," says an anonymous writer, "in its present improved state, is too apt to be considered as a contemplation merely—a scientific contemplation, indeed, and a devout one also—but separated entirely from this working-day world, and belonging, like music and painting, to that class of knowledge whose domain is rather in the air than on the earth—in the ideal than in the actual world." These errors of deduction have been greatly modified by an improved exercise of common sense, aided by the genius of discovery, and the appliances of electrical science. Remarkable corrections have already been made in the recording of celestial phenomena, by the use of electricity. One account has just reached us. The London *Court Journal*, of July 30, says: "Mr. Adams communicated to the Royal Society, at the closing meeting of their session in London, that he had discovered that the principle of Laplace's calculation of the secular motion of the moon is positively erroneous. This is a discovery which affects the whole range of lunar astronomy, seeing that all the calculations made on the assumption that the moon really was in the place assigned to her, are wrong. A staff of computers will therefore have to be set to work at the observatory, to recompute the lunar observations, avoiding the error, which amounts to about seven seconds. We shall then have the means of rectifying our Nautical Almanac, and of making it more accurate than ever; while those astronomers, and they are not a few, who have written about ancient eclipses, will have to go over their task again, and see what they make of it with the new principle. It was said, shortly after Mr. Adams' discovery of Neptune, that such a man would find other great works to do in astronomical science, and here we have an invaluable confirmation." In the observatory in which this discovery was made, the registry was kept by a Morse instrument, the same in mechanism and design as the instrument in use in the observatory at Washington, and which is being adopted in France, in Germany, and in Russia. A fillet of paper runs from the register, which is similar to that employed in ordinary telegraph writing. "The seconds are marked upon the fillet at intervals of about an inch—the circuit, without passing through the clock, being opened and closed by a delicate contrivance, called an interrupter, acted upon by the scapement, and the instants of observation are noted collaterally by break-circuit keys held by the observers. In the arrangement, the pens of all the instruments mark upon the same fillet, and the times of observation are easily read to hundredths of a second."* The subdivisions of time, so essential for accuracy, are here noted with almost incomprehensible exactness; while the agent which accomplishes the feat has the additional facility of dispatching the accuracy of its computations simultaneously throughout the land.

W. C. Bond, of the Cincinnati Observatory, has spent much time and labor in astronomical observations, in which he has been highly successful. In a late paper, he says: "The results which have been obtained by means of the electro-magnetic apparatus for recording astronomical observations, are quite satisfactory. This method of adapting the electric currents to the wants of the astronomer, and which has grown up under the fostering care of the Coast Survey, is purely American, and is acknowledged as such in Europe." Observers are well aware of the difference between observations for right ascension and declination. In the first, the principle of repetition has been extensively introduced, with the best results; while, as to the other, reliance is mainly placed on the accuracy of a single bisection of the star observed on a single declination wire. Two years since, Professor Mitchel, also of the Cincinnati Observatory, executed a plan by which, on the same night, during one and the same transit, a star, or other heavenly body, could be observed on *ten* declination wires with all the precision due to a single observation by the old methods. "The observer," says Professor M., "is released from the necessity of reading a divided circle; and the position of his instrument, at the moment his star is bisected by the declination wire, is, by a single touch, engraved on metal and stereotyped, to be read and examined when convenience may permit. On the swiftest moving stars, *ten bisections* are readily accomplished and engraved in the space of a single minute of time, and at a maximum hour-angle of only thirty seconds of time." This is by the instrument invented by Professor M., for the measurement of declination, and which varies essentially from the old plan. He adds: "Thus far in the application of the new methods, my examinations have been confined to zones not exceeding twenty-five degrees in width. There is no difficulty, however, in extending these researches through the entire heavens, and comprehending, in the same night, the entire sweep of the meridian from north to south." After this, he proceeds to present some of the results tending to demonstrate the degree of precision already reached in the determination of the differences of declination. His attention had been exclusively directed to this one point: "Within what limits of error could the new apparatus repeat its own work on different nights on stars whose difference of declination varied from a second or two up to 25° or 30°?" Then ensues a narrative of the manner in which the records were made, and the results of the new process, by electro-magnetism. And the accuracy with which the magnetic plan accomplishes its work may be gathered from these few words: "A star was brought to bisection on a wire; and while thus located, the conducting wires were gently touched by the hand of the observer, and the instrument was seen to yield to every touch. A source of error was thus detected, of a minute character, indeed, but of vast importance where *tenths* of seconds of arc were the quantities under examination," &c.

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* Maury.

It is impossible to estimate, with any degree of precision, the extent of the advantages which must accrue to astronomy and nautical science by the discovery of the electrical properties and the use of the telegraph. And in proportion as these are benefited, commerce and international intercourse will be advanced, and securities against life and property be afforded. To find the longitude has been as much a provoking impossibility with mathematicians, as with mariners it has been a necessary and ardently-wished-for event. By the aid of electro-registers and other apparatus, how long will it be ere this desideratum is found? The Russian (*Pulkova*) work has been pronounced the most accurate in the world; yet here, in the United States, by a small and imperfect instrument, not yet introduced fully to science, that work has been surpassed. We shall merely advert to the fact, that government has done much recently in contributing to knowledge on the subjects of longitude and the galvanic wave-time. The late Sears C. Walker had these branches of science in charge, under the superintendence of the Coast Survey Bureau; and his sound experience and practical mind would have proved valuable acquisitions to the talent we already possess; but death has removed him from us. In his last report, dated September 30, 1851, he furnishes the result of three experiments on galvanic wave-time; and in a report of the same date, tabular statements of the progress made by him in determining longitudes. We allude to these additional facts, because it evinces a disposition to make the telegraph subservient to the purposes of nautical science in every available sense, and because it is an evidence that even an usually slow government has become convinced of the peculiar value of the properties of electricity as aids to astronomy and navigation.

Art. IV.—GROWTH, TRADE, AND MANUFACTURE OF COTTON.

No. III.*

DURING the period of the brilliant inventions and improvements in mechanical contrivances which have been described, our fathers had no time to devote to such pursuits.—They had other work on their hands of still *greater importance*. They were resisting the encroachments of tyranny, organizing military forces, promulgating a declaration of independence, preparing constitutions, and founding a republic. As soon as they had made good their declaration, perfected their constitution, and formed a more *perfect union*, (which we trust may last forever,) they turned their attention to the arts of peace.

Before describing the rise and progress of cotton manufac tures in the United States, the introduction and growth of the raw material claims our attention.*

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* See September and October Nos., 1853.

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* The following synopsis of the history of the early introduction of cotton into the United States is given by a writer in the *Charleston Mercury*, which we quote entire :—

On this interesting subject is found the following information in Governor Seabrook's "Memoir on the Cotton Plant," published a few years ago :—"In a pamphlet of the date of 1666, entitled 'A Brief Description of the Province of Carolina, on the Coast of Florida,' the writer, in speaking of the Cape Fear settlements, made only two years before, says :—'They have indigo, tobacco very good, and cotton wool.' Dr. Hewitt, in his historical account of South Carolina and Georgia, while commenting on the introduction of silk into the former, and the products of the earth, for which premiums ought then to have been given to those who should bring to market the greatest quantities of them, alludes particularly to cotton, and after detailing the manner of planting it, remarks that this article, 'though not of importance enough to have occupied the whole attention of the colonists, might, nevertheless, in conjunction with other staples, have been rendered profitable and useful.'

"In Wilson's account of the 'Province of Carolina, in America,' published in 1682, it is stated that 'Cotton of the Cyprus and Malta sort grows well, and a good plenty of the seed is sent thither.' In Peter Purrey's description of the Province of Carolina, drawn up in Charleston in 1731, 'flax and cotton' are said to 'thrive admirably.' In the journal of Mrs. Pinckney, the mother of Gen. Thomas and Gen. Charles C. Pinckney, who, as Miss Lucas, when only eighteen years of age, was entrusted with the management of the planting interest of her father, the Governor of Antigua, is the following memorandum: 'July 1, 1739, wrote to my father to-day a very long letter on his plantation affairs—on the pains I had taken to bring the indigo, ginger, cotton, lucerne and casada to perfection, and that I had greater hopes from the indigo than any other.' 'June, 1741, wrote again to my father on the subject of indigo and cotton.'

"It is a well-authenticated fact, that in 1736, as far north as the thirty-ninth degree, cotton, 'on the garden scale,' was raised in the vicinity of Easton, in the county of Talbot, on the eastern shore of the Chesapeake Bay. About forty years afterwards, it was cultivated in St. Mary's County, Maryland, and in the northern county of Cape May, in New-Jersey; also in the county of Sussex, in Delaware.

"Among the exports of 'Charles Town,' from November, 1747, to November, 1748, are included seven bags of cotton wool, valued at £3 11s. 5d. per bag. In 1754, some cotton was again exported from South Carolina. In 1770, there were shipped to Liverpool three bales from New-York, four bales from Virginia and Maryland, and three bales from North Carolina. Before the Revolutionary War, Virginia exported, *communibus annis*, hemp, flax-seed, and cotton to the value of $8 000. In 1784, an American vessel that carried eight bags to Liverpool was seized, on the ground that so much cotton could not be produced in the United States. In 1785, 14 bags; in 1786, 6 bags; in 1787, 109 bags; in 1788, 389 bags; in 1789, 842 bags; and in 1790, 81 bags, were received in Europe from this country. Of these, 153 bags were sent directly, and a portion of the remainder by the way of Philadelphia and New-York, from Charleston. The first bag of cotton sold in South Carolina was purchased in 1784, by John Teasdale, from Bryan Cape, then a factor in Charleston. The first bag of the wool exported from that city to Liverpool arrived January 20, 1785, per Diana, and was consigned to Messrs. J. & J. Teasdale & Co."

Gov. Seabrook, in the pamphlet from which the above are extracts, after assigning very satisfactory reasons for his belief that the seed of short staple cotton was originally introduced into this country from the Mediterranean, says, "Peter Purrey is represented to have brought with him, among other seeds, that of cotton. This, and a paper of the same material, received by the Trustees for the settlement of Georgia, from Philip Miller, of Chelsea, England, it can scarcely be questioned, were from the Mediterranean." Mr. Wilson, already quoted, says expressly that the Carolina sort was from Cyprus and Malta. In a pamphlet entitled "American Husbandry," published in London in 1775, the writer remarks, that the "cotton

The precise circumstances under which the cultivation began in the Southern States, the time when and the place where it obtained first a permanent footing, are involved in much obscurity. The attention of intelligent persons must have been called to it before the commencement of the Revolutionary War, as we find the first Provincial Congress of South Carolina, held in January, 1775, recommended to the inhabitants to raise *cotton;* yet little practical attention was paid to their recommendation. A small quantity only was raised for domestic manufacture. Soon after the peace of 1783, its cultivation spread, and Georgia took the lead in its production. Among the planters who raised cotton upon a large scale (as it was then called), was Mr. Leake, of Savannah: in 1788 his crop was 5,000 pounds in the seed.

The commencement of the cultivation of sea-island cotton is more clearly ascertained.

Some of the colonists who adhered to the royal cause, had fled to the Bahama Islands; and learning that the inventions of machinery in England had caused a great demand for raw cotton, they were induced to turn their attention to its cultivation. The small island of Anguilla, in the Caribbean Sea, was celebrated for its excellent cotton, (the seed supposed to have come originally from Persia,) and from thence the Bahama settlers received their seed. By the year 1785, they had succeeded in raising cotton on two of the islands; from one of which Mr. Spalding, of Georgia, received a bag of cotton-seed: other Georgians also had similar contributions from their former acquaintances in that colony. From this seed all the sea-island cotton plants have been produced.

The species of cotton first introduced, known in commerce by the name of "upland," adheres to every part of its seed with great tenacity: the infinite delay and trouble attending the separation of the fibre from the seed, greatly retarded the extension of its growth. Among the early cultivators, the fibre was usually separated from the seed by the hands of laborers. Rollers and the bowstring were subsequently introduced, but the process with their assistance was exceedingly slow and expen-

cultivated in our colonies is of the Turkey kind. On the other hand, it must be supposed, from the language of their historian, that the Cape Fear emigrants, who began the growing of the gossypium only two years after they had established their settlements, were provided with seed from Barbadoes."

In reference to sea-island or black-seed cotton, the writer states that it "began to be raised in Georgia in experimental quantities, in 1786." The native place of the seed is believed to be Persia. It is designated the Persian cotton by Bryan Edwards, and is so called in the West Indies, and by the merchants of England. The seed grown in this country came from the Bahama Islands, where it had been introduced by the Board of Trade, from Anguilla, a small island in the Caribbean Sea, and was sent by Mr. Tatnall, then Surveyor-General of the Bahamas, Col. Relsell, and others, to Governor Tatnall, James Spalding, Richard Leake, and Alexander Bisset, all of Georgia.

sive. From this process the upland cotton took the name in the English market of "Bowed Georgia," and it is now sometimes quoted by that name, although the instrument has been entirely out of use more than fifty years.

Unless some other means could be devised for preparing the cotton for market, all saw that the amount produced must be very small.

The machine for effecting this desirable object was invented by ELI WHITNEY, a native of Westborough, Mass. He received his education at Yale College, and graduated in the autumn of 1792. Soon after this he went to Georgia in quest of fortune, taking with him a New-England boy's usual capital, consisting of a good education, a jack-knife, and self-reliance. While residing in that state in the family of Mrs. Green, widow of the late General Green, the cultivation of cotton was exciting universal interest in that section of country. Mr. Whitney often heard gentlemen at the house of this lady express their regrets at the want of some economical method of preparing it for market. With a prophetic perception of its invaluable importance, he went to work to invent a machine that should answer the purpose. After many weeks of intense application, his machine was completed; and the SAW-GIN was produced. This was in the latter part of the winter of 1793.* Unlike most other important inventions, this machine does not owe its useful qualities to successive improvements of others, but came forth perfect from the hands of the inventor, and remains in all its essential parts precisely as Mr. Whitney left it. No invention of labor-saving machines has produced as important results as this. The agricultural resources of the cotton-growing states "sprang forth with newness of life," and the United States, which before this had not been known as a cotton-growing country, immediately took the lead in the production of this great staple. The cheapness with which the material could now be produced greatly increased the demand, and this country has for many years furnished more than four-fifths of the cotton used by the civilized world.† It is painful to follow further the personal history of this great man. Although his invention benefited his country untold millions, yet he received no adequate compensation. Though depressed by pecuniary embarrassments, no public reward, like the English grants to their successful inventors, soothed the evening of his life. He is dead. No national monument has been erected to his memory expressive of the gratitude of his countrymen for the transcendent benefit his genius has conferred upon them; but private affection has placed upon his tomb, at New-Haven, in Connecticut, this inscription:

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* The following well-authenticated incident in the life of Mr. Whitney, as related by himself to the father of a highly respectable gentleman, is well worth preserving, as a striking illustration of the fact that the most important results often originate in the most trivial and accidental circumstances. Mr. Whitney stated that while walking for exercise one day after dinner, with a tooth-pick in his hand, and being in deep meditation upon the project of constructing an instrument for separating cotton from the seed, he picked up a boll of cotton which accidentally lay upon the ground before him; and in trying the tenacity of the fibre to the seed, he mechanically separated the one from the other with his tooth-pick. The thought flashed upon his mind, that a proper arrangement of *metallic points*, so as to be brought in contact with the fibre to the exclusion of the seed, would effect his object. This was his cue, and the invention of the *Saw-gin* was the result.

† The following table, derived from Burns' statistics of the cotton trade, exhibits the proportion and actual amounts of cotton annually supplied to

ELI WHITNEY,

THE INVENTOR OF THE COTTON-GIN.

OF USEFUL SCIENCE AND ARTS, THE EFFICIENT PATRON
AND IMPROVER.

IN THE SOCIAL RELATIONS OF LIFE, A MODEL OF
EXCELLENCE.

WHILE PRIVATE AFFECTION WEEPS AT HIS
TOMB, HIS COUNTRY HONORS
HIS MEMORY.

BORN DECEMBER 8TH, 1765.
DIED JANUARY 8TH, 1825.

In my researches into the exports of cotton, I find it stated, but am not certain of the authority, that in the year 1770 there were shipped to Liverpool three bales of cotton from New-York, four from Virginia and Maryland, and three barrels from North Carolina; though in 1784, the year after the close of the Revolutionary War, a vessel that carried eight bales of cotton from the United States to Liverpool, was seized in that port on the ground that so large a quantity of cotton could not be the produce of the United States.* In a British work, I find the following statement: Cotton imported from America in 1785, as follows—one bag per Diana, from Charlestown; one per Tonyn, from New-York; three per Grange, from Philadelphia. Part of these cottons were seized in Liverpool, under the impression

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England from different parts of the world, on the average of thirteen years, ending 1846.

	Per cent. of the total supply.	lbs. supplied.
From the United States	79¼	380,568,958
" Brazil	4½	21,462,150
" Egypt	2½	12,123,790
" West Indies	1	4,432,777
" East Indies	12¾	61,578,371
	100,	480,166,046

* I have been informed by Gen. Duff Green, that the first shipment of cotton from the United States to England was from Savannah, by a person named Miller. It was brought from the interior of Georgia in a pocket-handkerchief by a woman, and given in exchange for a pound of copperas and a few pins. Mr. Miller was living a few years ago, and well known in Savannah as "*Cotton Miller.*"

that cotton was not the produce of the United States. From an official table prepared by N. Sargent, Esq., Register of the Treasury Department, we find the value of cotton exported from the 1st of October, 1789, to 30th June, 1851, to be as follows:

STATEMENT OF THE VALUE OF COTTON EXPORTED FROM THE UNITED STATES FROM THE 1ST OCTOBER, 1789, TO 30TH JUNE, 1851.

Years ending 30th Sept.	COTTON.	Years ending 30th Sept.	COTTON.	Years ending 30th Sept.	COTTON.
1790....	$42,285	1811......	$9,652,000	1832....	$31,724,682
1791....	52,000	1812......	3,080,000	1833....	36.191,105
1792....	51,470	1813......	2,324,000	1834....	49,448,402
1793....	160,000	1814......	2,683,000	1835....	64,661,577
1794....	500,000	1815......	17,529,000	1836....	71,284,925
1795....	2,250,000	1816......	24,106,000	1837....	63.240.102
1796....	2,200,000	1817......	22,628,000	1838....	61,556,811
1797....	1,250,000	1818......	31,334,258	1839....	61,238,982
1798....	3,500,000	1819......	21,081,679	1840....	63,870,307
1799....	4,100 000	1820......	22,308,667	1841....	54,330.341
1800....	5,000,000	1821......	20,157,484	1842....	47,593.464
1801....	9,100,000	1822......	24,035,058	9 mos. to June 30, 1843	49,119,806
1802....	5,250,000	1823......	20,445,520	Yrs. end'g June 30.	
1803....	7,920,000	1824......	21,947,401	1844....	51,063,501
1804....	7,650,000	1825......	36,846,649	1845....	51,739,643
1805....	9,445,500	1826......	25,025,214	1846....	42,767,341
1806....	8,332,000	1827......	29.359,545	1847....	53.415,848
1807....	14,232,000	1828......	22,487,229	1848....	61,998,294
1808....	2,221,000	1829......	26,575,311	1849....	66,396,967
1809....	8,815,000	1830......	29,674,883	1850....	71,984,616
1810....	15,108,000	1831......	25,289,492	1851....	112,315,317

From this table we see that the total declared value of the exports of raw cotton from the United States, from 1790 to 1851 inclusive, amounts to the immense sum of *one thousand seven hundred and eleven million, six hundred and ninety-one thousand, six hundred and seventy-six dollars* ($1,711,691,676), and this is exclusive of the large quantity that has been consumed in our own country. There is nothing to be compared to this in the history of commerce or in the annals of human industry. *This, perhaps, is not the proper place or occasion to indulge in the reflection, as to what the effect upon the resources and development of our own country would have been, had its circumstances been such, or could the policy of the government have been so shaped, that instead of exporting barely the raw material, it could have had its value enhanced by* HOME LABOR, *by manufacturing it into cloth, or simply into yarn, before exportation.*

The capital invested in the *culture* of cotton, which has produced the foregoing extraordinary results, was estimated by the late Hon. Levi Woodbury, in his very able report, as Secretary of the Treasury, made in February, 1836, at $740,000,000 permanent, and $30,000,000 floating. Assuming this calculation to be correct, (and the value of lands, &c., and the produce per acre, do not now vary materially from his estimate at that time,) we find that the total amount of capital invested at the present time in this branch of the agricultural industry of the United States cannot vary much from $1,500,000,000.*

The first mention we find of American manufactures for sale, is from an advertisement in the *Pennsylvania Gazette*, April 3d, 1782, by Samuel Wetherell, who advertised jeans, fustians, everlastings, coatings, &c., to be sold *at his manufactory*, in South Alley, between Market and Arch streets, Philadelphia.

Machinery, other than the one-thread wheel, common loom and hand cards, had not then come into use. In 1786, Mr. Orr, of East Bridgewater, Massachusetts, employed Robert and Alexander Barr, from Scotland, to construct carding, spinning and roving machines. On the 16th of November, 1786, the Legislature of Massachusetts, to encourage the machinists, made them a grant of £200, lawful money. In March, 1787, Thomas Somers (an English midshipman) also constructed a model of a spinning jenny, for which he received £20, lawful money, from the state government. The above machines and model, remained in Mr. Orr's possession, for the inspection of all disposed to see them; and he was requested by the General Court to exhit them, and to give all explanations and information in his power respecting them. It is believed that these machines were the first made in the United States. Several machines from these models were made for different persons, and used in private houses.

The first cotton factory established in the United States, was at Beverly, in Mass., about 17 miles from Boston. It was organized in 1787, with (as is stated) a large capital. It continued in operation about fifteen years, making corduroys, bed-

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* A recent writer says of this report of the late Secretary, that in making his calculations he estimated the number of acres in cotton at 2,000,000, and the annual product at 300 lbs. net cotton per acre. This is entirely too large an estimate of the yield per acre; and consequently he made the number of acres too small, and the production too large. By the best calculations from the census of 1840, and other sources, the writer alluded to above estimates the capital employed in the production of cotton as follows:—

1,200,000	slaves, at $500 each, is	$600,000,000
4,500,000	acres of land, at $10 per acre	45,000,000
14,000,000	acres of land, in timber, pasture, &c., at $3 per acre,	42,000,000
6,300,000	acres of land, in grain, at $10,	63,000,000
400,000	mules and horses, at $100 each,	40,000,000
4,500,000	hogs and sheep, at $1 each,	4,500,000
300,000	cattle, at $5 each,	1,500.000
500,000	ploughs, at $2 each,	1,000,000
Wagons, and other plantation implements, &c		1,000,000
		$798,000,000

There does not, however, appear to be any data that can be relied on to make an accurate calculation on this subject.—(See De Bow's Review, 1846.)

tickings, and cotton velvets. The warps used were probably of linen. Yet the business was not profitable—the loss having been as great as ninety cents on the dollar. General Washington visited this establishment on his tour through the country in 1789. Great interest was excited throughout all the Northern and Eastern States on the subject of manufactures. No models of machinery used in England could be procured, as the English government, *with a jealous care for their own interests,* had prohibited, under heavy penalties, the exportation of any machines, or models, or drawings of them. Many attempts were made to procure models, without success. Tench Coxe, one of the earliest, ablest, and most devoted friends of American manufactures, engaged a person to send him from London complete brass models of Arkwright's patents. The machinery was completed and packed, but was detected by the custom-house officers, and forfeited.

All attempts to introduce the Arkwright machinery had proved unsuccessful. But the cupidity of the British government, aided by the utmost vigilance of its officers, could not prevent its introduction. Mr. Samuel Slater, who had served a regular apprenticeship to the cotton-spinning business, under Sir Richard Arkwright's partner, Mr. Strutt, arrived in New-York in the month of November, 1789. In a letter, written by himself the 2d of December following, to Moses Brown, of Providence, R. I., he says, "A few days ago, I was informed you wanted a manager of cotton spinning. If you are not provided for, I should be glad to serve you, though I am in the New-York manufactory. But we have but one card, two machines and two spinning jennies, which I think are not worth using. *My intention is to erect a perpetual carding and spinning*" (meaning Arkwright's patents). The answer to this letter was such as to induce him to go to Providence; and in January, 1790, he made an arrangement with Messrs. Almy & Brown, of that city, to commence preparation for spinning cotton at Pawtucket. There he commenced making machinery, principally with his own hands; and on the twentieth of the next December, he started three cards, machines for drawing and roving, and seventy-two spindles. *These were the first Arkwright machines put in operation in this country; and the credit* of introducing them belongs to Samuel Slater. He had no models or drawings to aid him in the construction of the machines, having been deterred from bringing them, for fear of detection by the British government.

Some of Mr. Slater's first yarn, and some of the first cloth made in America *entirely of cotton*, was sent to the Secretary of the Treasury, the 15th of October, 1791.

Although they had some difficulty at first in disposing of their yarn, their business slowly increased; and, somewhere about 1795, Mr. Slater, in company with Mr. Oziel Wilkinson, built a small mill on the Massachusetts side of the river, at Pawtucket, *which was the first cotton factory in Massachusetts, with machinery on the Arkwright principle.* Their business continuing prosperous, and Mr. Slater's brother having arrived from England and brought a knowledge of the recent improvements of the English spinners, Almy and Brown and the Messrs. Slaters turned their attention to a more extended investment in cotton spinning; and in 1806, the village of Slatersville, R. I., was projected; a large factory was erected, and they commenced spinning in the spring of 1807.

We have not time, on this occasion, to follow the personal history of Mr. Slater. The following obituary notice is copied from one of the periodicals of the time:—

"April 20th, 1835, died, at Webster, Mass., aged 67, Samuel Slater, long known as an enterprising and respected citizen of Rhode Island, *and the father of the cotton manufactures of this country*, in which he acquired a great estate. The first cotton manufactory in the United States was built by Mr. Slater at Pawtucket, R. I., which was standing and in operation at the time of his death."*

Small factories spread in Rhode Island about the year 1807, and improvements began to be introduced by American artisans. As early as 1808, $80,000 was invested in the Globe factory, Philadelphia. The Arkwright machinery was introduced very early at Copp's Creek and at Kirk's Mill, in Delaware.

But other sections of the country were also turning their attention to this important business.

Alexander Hamilton early saw the importance of manufactures to the country, and in his able report on the subject, made during Washington's administration, gave a sound tone to the public mind. *His memory should ever be held sacred by American manufacturers, as one of their earliest, ablest, and best friends.*

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* An attempt to manufacture cotton was made at Derby, in Connecticut, under the patronage of Col. Humphreys, late minister to Spain.

One at or near Hurlgate, N. Y., under the patronage of Mr. Livingston, was commenced, but failed and was abandoned. It is believed nearly all the cotton factories in this country, from 1791 to 1805, were built under the direction of men who had learned the art or skill of building machinery in Mr. Slater's employ.

Mr. Slater used to spin both warp and filling on the water-frame, up to 1803. Mules for spinning filling had not then been introduced. The cotton used to be put out to poor families in the country, and whipped on cords, stretched on a small frame about three feet square, and the motes and specks were picked out by hand, at from four to six cents per pound, as it might be for cleanness.

Mr. Slater used to work cotton from Cayenne, Surinam and Hispaniola, and made first quality of yarn. Some time after, when short cotton began to be used, he mixed about one-third: he called the yarn of such second quality, making 15 cents per lb. difference. Thus, while number 12 was 84 cents of 2d quality, number 12 of first quality was 99 cents per pound.—*Memoir of Slater*, pp. 106-7.

In the early part of the year 1791, *on his recommendation, and by his active and influential exertions*, a number of spirited individuals of New-York, New-Jersey, and Pennsylvania, associated themselves for the purpose of "establishing useful manufactures," by the subscription of a capital of more than $200,000. The general object of the association was to lay the foundation of a great emporium of manufactures, *but their more immediate object was the manufacture of cotton cloths.*

Having resolved to establish themselves in New-Jersey, the contributors were incorporated by the Legislature of the State on the 2d of November, 1791, by an act authorizing a capital stock of one million of dollars, with the right to acquire and hold property to the amount of four millions, and the power to improve the navigation of the rivers, make canals for the trade of the principal site of their works, and to raise by way of lottery one hundred thousand dollars. The act of incorporation, *which was drawn or revised by Mr. Hamilton*, also gave a city charter, with jurisdiction over a tract of six square miles.

After its organization, the society advertised their desire to purchase a suitable site for their city, with requisite water power, in any part of New-Jersey. They received proposals from the "West Jersey Associates," from "South River," "Perth Amboy," "Millstone," "Bull's Falls," the Little Falls of the Passaic, and from the inhabitants of the Great Falls of that river; and in May, 1792, they selected the latter place as the principal site of their proposed operations; giving to their town the name of Paterson, in honor of Governor William Paterson, who had signed their charter. At a meeting of the directors, on the 4th of July, 1792, appropriations were made for building factories, machine shops, and shops for calico-printing and weaving. A raceway was directed to be made, for bringing water from above the falls to the proposed mills. Unfortunately, the direction of these works was given to a French engineer, whose magnificent projects and reckless expenditures uselessly spent a large sum of money for the company.

In January, 1793, Peter Colt, Esq., of Hartford, then Comptroller of the State of Connecticut, was appointed general superintendent of the company. The French engineer resigned; and Mr. Colt, thus in sole charge of the works, abandoned the magnificent projects of his predecessor, completed the raceway, conducting the water to the first factory erected by the society. This factory was finished in 1794, when cotton yarn was spun in the mill. Yarn had been spun at this place the preceding year, by machinery moved by oxen. In 1794, calico shawls and other cotton goods were printed; but, owing to a combination of causes, the company resolved, in 1796, to abandon the manufacture, and discharged their workmen. No part of the failure of the enterprise was attributed to Mr. Colt; as the directors, on closing their concerns, unanimously "returned him their thanks for his industry, care and prudence in the management of their affairs, being fully sensible that the failure of the objects of the society was from causes not in his power, or that of any other man, to prevent."

The cotton mill of the company was leased to individuals until 1807, when it was accidentally burned down. In 1801, a mill-seat was leased to Mr. Charles Kinsey; in 1807, a second; and in 1811, a third, to other persons; and between 1812 and 1814 several others were sold or leased. In 1814, Mr. Roswell L. Colt, the present governor of the society, purchased at a depreciated price a large proportion of the shares, and reanimated the association. From this period, the growth of Paterson has been steady, except in seasons of general or manufacturing depression.

Although out of the regular chronological order, we will mention here, that Mr. John Colt, a son of Peter Colt, Esq., and a gentleman who, by his education, sterling integrity, high sense of honor, and polished manners, is an honor to American manufacturers, commenced making *cotton duck*, in Paterson, the 7th of February, 1822. Cotton duck had been made in this country before, at Baltimore, and also some in New-England; but the yarn was not doubled and twisted, and had to be heavily starched to prevent chafing in the reed, which rendered it nearly useless for sails, from its liability to mildew; but Mr. John Colt made the first cotton duck of doubled and twisted yarn, without starch or any kind of dressing, and also the first that was woven on power looms. The first year, he made about seventy pieces in this improved manner. In 1823, he made 201 pieces. The weaving was done by hand looms. On the 4th of March, 1824, the first piece of cotton duck ever woven upon a power loom was produced. The article was found to be of excellent quality, and soon began to be extensively used for sails. Mr. Colt went on steadily increasing the manufacture. From 1826 to 1828, he averaged from five to six thousand pieces per annum. In 1831, he increased to about 9,000 pieces, and has carried the manufacture as high as 12,000 pieces per annum. There are also quantities of cotton duck made in New-England, Maryland, &c.; but the article produced by Mr. Colt has always maintained its superiority, and commanded the highest price in the market.

The English have declined to use cotton duck for sails; and one ship-builder refused to accept a suit of sails gratis, as he was satisfied it would not answer the purpose. *Perhaps they have obtained some light on this subject, as the sails of the* YACHT AMERICA, *with which they became acquainted in* 1851, *were made of the ordinary duck from Mr. Colt's mill.*

But, to return to the regular chronological order of events, we find that in 1807 there were in Rhode Island, Massachusetts and Connecticut, fifteen mills, with 8,000 spindles, producing about 300,000 pounds of yarn annually. By a report made to the government in 1810, it appears that eighty-seven additional mills had been erected by the end of 1809, of which sixty-two were then in operation by horse and water power, running 31,000 spindles. Upon the breaking out of the war of 1812, there were in Rhode Island thirty-three cotton factories, with 30,663 spindles, and in Massachusetts there were twenty mills, with 17,371 spindles. The yarn spun in these factories was woven by individuals upon hand-looms. At this time the country received nearly all its cotton cloth from Great Britain and the East Indies. In 1807 and 1808, there were imported from Calcutta *fifty-three millions* of yards, principally of coarse cotton goods, and worth, as prices then were, over *twelve millions of dollars.* In 1810, there were made *in all the factories* in the United States, as appears by the return of the Hon. Albert Gallatin, then Secretary of the Treasury, *only eight hundred and fifty-six thousand six hundred and forty-five yards of cotton cloth,* viz.: in Rhode Island, 735,319; Massachusetts, 36,000; Vermont, 2,500; New Jersey, 17,500; Pennsylvania, 65,326. The whole number of yards made in the United States in that year was sixteen million five hundred and eighty-one thousand two hundred and ninety-nine; of this, 15,724,654 were of family manufacture. So imperfect was the machinery then in use, that the weaving alone cost *more than double* the whole process after the introduction of the power-loom.

We now arrive at an interesting period in the history of cotton manufactures in our own country. The *large enterprises* that had been attempted were premature. The Beverly Company had lost its capital. The "Society of Useful Manufactures," at Paterson, had suspended operations. We find but few who kept steadily increasing, but the increase was very slow. Those of Rhode Island, under the able lead of Mr. Slater and his associates, continued to make progress. The wars which grew out of the French Revolution had thrown the carrying trade in a great measure into the hands of our merchants. It was very profitable, and the enterprise and capital of the country was mainly directed in that channel.

But with the war of 1812 came a different state of affairs. Our commerce for the time was nearly destroyed, and our foreign trade paralyzed. A positive necessity existed for domestic manufactures, and the men were not wanting who were equal to the emergency. To Francis Cabot Lowell and Patrick Tracy Jackson, both of Boston, Mass., and the able men that were associated with them, we are indebted for the establishment of the cotton manufacrure on a scale so ample that we are enabled to supply a large portion of our consumption, and to compete successfully in distant foreign markets with the wealthiest nations of the earth.

Shortly after the commencement of the war, Mr. Lowell, who had recently returned from England, impressed with the necessity, and convinced of its practicability, proposed to Mr. Jackson to make the experiment on an ample scale. Great were the difficulties that beset the new undertaking. The state of war prevented any communication with England; not even books and designs, much less models, could be procured. The structure of the machinery, the very tools of the machine shop, the arrangement of the mill—all these were to be, as it were, re-invented. But men had got hold of the business now who, relying upon their own great talents, aided by the improvements in machinery which had been introduced by Mr. Slater and others, were capable of surmounting every obstacle. The first object to be accomplished was to procure a power-loom. To obtain one from England was impossible; and although there were many patents for such machines in our patent office, not one had yet exhibited sufficient merit to be adopted into general use. Under these circumstances, but one resource remained, to contrive one themselves; and this they immediately set about. After numerous experiments and failures, they at last succeeded, in the autumn of 1812, in producing a model, which they thought so well of, as to be willing to make preparations for putting up a mill for weaving cotton cloth.

It was now necessary to procure the assistance of a practical mechanic to aid in the construction of the machinery, and they had the good fortune to secure the services of Mr. Paul Moody. The project had been hitherto exclusively for a weaving mill, to do by power what had before been done by hand loom. But it was ascertained that it would be more economical to spi[illegible] the yarn than to buy it. A water power had been procured at Waltham, Mass., and associating with themselves some of the wealthy gentlemen of Boston, they put up a mill of about 1,700 spindles, with the necessary preparation, and power looms of their own contrivance, sufficient to weave their yarn. The mill was completed late in 1813. *This was the first manufacturing establishment in the world, that combined all the operations necessary for converting the raw cotton into finished cloth.*

The mills previously erected in this country were for spinning only; and in England, although power looms had been introduced, they were used in separate establishments, by persons who purchased their yarn from the spinners.

Under the able management of the projectors, the business proved eminently successful, and was extended to the full capacity of the water power at Waltham. Although the first suggestions, and many of the early plans, for the new business had been furnished by Mr. Lowell, Mr. Jackson devoted the most labor and time in conducting it.

Great interest had also been excited in other sections of the country, on the subject of manufacturing, during the war. Several mills had been erected in the State of New-York, and elsewhere, and a large amount of capital (considering the wealth of the country at the time) invested. Upon the close of the war with Great Britain, and the opening of the foreign trade, this interest received a severe shock, and was much embarrassed by excessive importations of foreign goods.

Mr. Lowell, whose profound knowledge of the business and eminent abilities peculiarily fitted him to impart correct information to others, repaired to Washington, in the winter of 1816; and in confidential intercourse with some of the leading members of Congress, he fixed their attention on the importance, the prospects, and the dangers of the cotton manufacture. The Middle States, under the lead of Pennsylvania, were strong in the manufacturing interest. The West was about equally divided. The New-England States, attached, from the settlement of the country, to commercial and navigating pursuits, were less disposed to embark in the new policy, which was thought adverse to some branches of foreign trade, and particularly to the trade with India, from which the supply of coarse cottons was principally derived. The Southern States, and particularly South Carolina, then represented by several gentlemen of distinguished ability, held the balance between the rival interests. After a protracted discussion, marked by eminent ability on both sides, the South, under the able lead of the distinguished and lamented John C. Calhoun, gave their influence to the new measure, and the tariff of 1816 was established. This was the first legislative enactment recognizing the existence of the cotton manufacture in this country.

But the earthly efforts of Mr. Lowell were drawing to a close. He died in 1817, at the early age of forty-three. "Few men have accomplished as much to make their names known to advantage and remembered with gratitude," as Francis Cabot Lowell.

After the passage of the law of 1816, the business continued to increase. Mr. Jackson continued to manage the Waltham Company, and began, as early as 1820, to look around for some new locality where the business might be extended. In 1821, Mr. Ezra Worthen suggested to Mr. Jackson that the Pawtucket Canal, at Chelmsford, would afford a fine location for large manufacturing establishments, and that probably a privilege might be purchased of its proprietors. To the comprehensive mind of Mr. Jackson the hint suggested a much more stupendous project,—nothing less than to possess himself of the whole power of the Merrimack River at that place, known as the "Pawtucket Falls.' Relying on his own talent and resolution, he set about this task at his own risk; and it was not until he had accomplished all that was material to his purpose, by purchasing the whole stock in the canal, and all the farms on both sides of the river, which controlled the water power, that he offered a share in the project to the proprietors of the Waltham Company and other persons whom it was thought desirable to interest in the scheme. This offer was eagerly accepted. Extensive additions were subsequently made, and in honor of his late lamented friend, the new town was named Lowell. On the 6th of February, 1822, the purchasers of the above-named property were incorporated as the "Merrimack Manufacturing Company," and vigorous measures were immediately adopted to carry out their plans. The personal superintendence of the business was confided to the late Kirk Boot, Esq. The foundation of the first mill was laid in 1822, and the first cloth produced in November, 1823. Mr. Ezra Worthen was appointed superintendent of the manufacturing department. He barely lived long enough to see the first commencement of the business. He died June 18th, 1824. In 1825, a reorganization of the company took place. It was found that there were mill privileges enough for several independent companies. It was deemed expedient that one company should have charge of the disposal of the land and water power, and of the furnishing of machinery, without entering into the manufacture of cotton. The necessary acts were passed by the Legislature, giving the privileges above described to the Locks and Canal Company. The price of the shares in this company under the reorganization, was $500 each; the annual dividends were large, and when at last it was thought expedient (about 1845) to close the affairs of the corporation, the stockholders received of capital nearly $1,600 per share.

We cannot at this time enter into a detailed history of the growth of this place; after the establishment of the Merrimack Company, others soon followed. Its advancement in wealth and all the elements of civilization has been singularly rapid. In 1826, the population was 2,500; in 1840, 20,796; and in 1850 it was 33,385. In 1850, there were nine companies, owning thirty-four factories engaged in manufacturing cotton goods, employing a capital of eleven million five hundred thousand dollars; with 305,004 spindles, 19,569 looms, besides bleaching, dyeing and printing works, employing 7,524 female and 2,427 male operatives. But we will not go further into the statistics of Lowell—merely adding that there are manufacturing interests in that city of large amounts, other than cotton. There is, however, one other interesting fact. There are two banks for savings at Lowell, one the "Lowell," and the other the "City." The Lowell Bank had on deposit, the first Saturday in November, 1850, from 4,609 depositors, $746,628 12 cents. The City Bank at the same time had on deposit from 615 depositors, $75,970 51 cents. The operatives in the mills are the principal depositors in these banks.

Great attention is paid to the physical, intellectual and moral welfare of the inhabitants and operatives in the mills. A large hospital, under able management, has been established. There is a valuable library of 7,000 volumes belonging to the city, to which any one can have access by paying fifty cents per annum; and the Lowell Institute, which has for its object the management of a course of lectures delivered every winter. Excellent schools are also maintained. In 1840, a paper called the "Lowell Offering" appeared, made up entirely of original matter written by the operatives. This periodical has obtained an extensive reputation. In 1844, selections from it were published in England under the significant title of "Mind among the Spindles." In 1845, there were twenty-three regularly constituted religious societies. They have erected twenty-one churches, at a cost of more than three hundred thousand dollars. Connected with these societies, there were over six thousand Sunday-school pupils and teachers; all this was accomplished in the short period of twenty-seven years. An unsettled territory has been covered with substantial edifices, mills, stores, churches, blocks of houses, the prosperous homes of nearly 35,000 people. A result highly creditable to the men who took the lead in this enterprise, has been the reward of this liberal display of their wisdom and humanity. Aided and encouraged by these advantages, the morals of the operatives in the factories have been cherished and preserved, and their intellectual and physical energies strengthened and improved. The superior intelligence and efficiency of the operatives of Lowell over those employed in the factories of the old world, is as manifest as it is gratifying.

The intimate connection between a high standard of morality and intellectual and physical efficiency, deserves profound consideration. It may be the turning point in our favor in our manufacturing rivalry with other nations. It gives us great pleasure to be able to say that Lowell is not alone entitled to this high commendation. The founders of the factories in Rhode Island and Paterson early saw and justly appreciated the value of a high standard of morality among their operatives, and have been unwearied in their efforts to cherish and sustain it. These leading examples have imparted a healthy tone of moral feeling in relation to these establishments, as they have been, and still are, extending throughout our country.

It would be gratifying to follow the personal history of Mr. Jackson. It is well worth studying as an example of boldness of conception, great foresight, a perseverance that nothing could check, triumphing over all obstacles, and rising superior to difficulties, blended with the strictest honor and integrity, that always sustained him.

Art. V.—SOUTHERN SLAVERY AND ITS ASSAILANTS.

THE KEY TO UNCLE TOM'S CABIN.

Mrs. Stowe and her books together have sunk so low at last that it is rather an act of charity to make reference to them before our readers. Though we rather consider the subject exhausted, as there is interest and ability in the annexed paper, furnished by a lady of Georgia, we cannot feel at liberty to exclude it. She has managed this argument for the South with skill, and her contribution will be widely read. Up to this time we have seen no other analysis and examination of the "Key," which followed in such ponderous (and rather unsaleable) proportions close upon the heels of Uncle Tom.—Editor.

In writing her Key, Mrs. Stowe seems to have been aware that the public would expect from her not only a verification of incidents which she says were essentially true, but also, in so great, so vehement an accusation against a people, some proof that she was not unfairly arguing from the abuse to the use, from the exception to the rule. The Key is divided into four parts. Part First contains simply a sort of verification of her characters, and beyond certain incidental statements and arguments discloses nothing particularly to be discussed. Parts Third and Fourth contain her examination of the slave code, with certain trials under it, and embody the chief force of her argument. We also find in it her attack on the arguments for slavery usually drawn from the Old Testament. Part Fourth contains a view of the action of the Church on the subject of slavery, with an attempt to prove the Epistle to Philemon an abolition document, and winds up by an effort to prove that the spirit of the Gospel commands us instantly to free our slaves.

In reviewing a book, it is best to have distinctly before the mind the full bearing and force of it; so we will endeavor to state succinctly what we conceive to be the general plan of Mrs. Stowe's reasoning.

Her general argument places the matter upon a wrong issue, and in reality makes two counts on one indictment. While she does not directly say that we are responsible for the act of the British government in bringing slaves into this country, she implies that we originated it, and makes us responsible for its continuance, by making it appear that in giving up property so unjustly acquired, we should make no sacrifice, and incur no inconvenience beyond the loss of the slaves' pecuniary value. These views, so easily controverted if directly put, she has so artfully involved in the book, that any one whose ideas were derived solely from it, would imagine they were so plain that all parties had agreed to take them for granted, while he would be apt to think the suggestion that there could be any disadvantage to the negroes in emancipation, could only come from a Bedlamite. By thus artfully shifting the ground of our defence from slavery made necessary by the force of circumstances to slavery in the abstract, she takes from us the legitimate defence of many apparent violations of right as necessitated by that force of circumstance, and she makes slavery really the creature of our own convenience and pleasure, pursued with total disregard to the good or rights of the negro. And though, when thus placed before us, the sophistry is so evident, the true state of the case so plain, that it seems quite unnecessary directly to confute it, still, by skilfully evading the direct enunciation of these false premises, she has contrived to render quite plausible a great many wrong conclusions.

Besides this general argument or one count of the indictment, she has made another by examining the subject in detail. In reviewing the slave code, she pronounces it both incomplete and inefficient, and so, quite in consonance with her theory that it is the creature of our own selfishness, and though it contains a great many protective enactments totally at war with that action, she attempts to destroy the force of this evidence of our desire to be humane, by making it appear that by the protective enactments, we simply intended to deceive the world as to our total inhumanity and selfishness, and that we have so artfully contrived the matter, that by a perfectly legitimate construction of these protective laws, they mean absolutely nothing. That of the humane class of Southerners, those who are not blinded by prejudice see this, and are abolitionists at heart. The rest of the humane class, feeling their own comfort and happiness involved in the well-being of their slaves, are too weak to see the drift of the vast mass, who, whether their eyes are open or closed to the total inhumanity and selfishness of the system, are themselves so selfish they do not care for it.

Mrs. Stowe says directly she does not confound slaveholders with the system in her hatred of it; but so long as she thus misrepresents them, they may be permitted to entertain some doubts as to whether she really knows her own feelings. It is a melancholy exemplification of the facility with which a philanthropist, who devotes himself exclusively to the eradication of one form of evil, can deceive himself, and come to regard any means justifiable, in the pursuance of a supposed good end. That subtle analyst of character, Nathaniel Hawthorne, has ably dissected this species of delusion in the Blithedale romance, whose hero, Hollingsworth, we commend to Mrs. Stowe's study. It is easy to see how she misleads herself, by first assuming a position, and then trying to collect facts to support it, a course which will lead the best-intentioned person into twisting facts to suit his purpose. It is evident Mrs. Stowe's mind is in that excited state which fitted her rather to defend a pre-adopted conclusion, than to investigate facts to arrive at conclusions.

It may be well to premise, that, while attempting to prove in the following pages that slavery, even if it be an evil in the abstract, is not one in our case, because emancipation would lead to still greater evils, the writer would utterly disclaim any intention of conceding it as such, even in the abstract. Whether it is an evil or not, is simply a curious, and not in our case a practical question; and in attempting to make proof that it is not necessary to our case, Mrs. Stowe attempts to drive us from the vantage-ground we really occupy.

The plain answer to the question how did American slavery originate, is one which so totally exculpates us, that we cannot but feel indignant at the odium cast upon us. They were brought into this country by the British Government, for their own gain, and in violent opposition to the wishes of our forefathers. While Massachusetts was the first state which participated in the slave trade, and it was openly countenanced by William Penn, it was fairly forced upon the slaves states, and Bancroft says Virginia passed twenty-three acts prohibiting it, by placing duties on slaves. It really is preposterous, that the English and the North, retaining the money which was the price of the property forced upon us, should make such clamor because we deem it necessary to our existence to keep them slaves. This begging of the question, which is, we believe, the logical term for Mrs. Stowe's grand sophistry, is shown very plainly in the notice she takes of the protective acts. She says they are peculiarly suggestive of the state of things which made such enactments necessary. The state of things is one for which we are not responsible, but it is to be traced to the cupidity of those who brought the negro into this country, and so made slavery necessary.

The question of emancipation taken for granted as perfectly safe, Mrs. S. tries to enforce it by comparing the arguments used against it to those used by despotic governments in favor of despotism (Key, p. 120). Fortunately for a reply to this plea, we live in a day when experience has proved that those arguments hold perfectly good in the cases of some despotic governments. Mexico and France have both proved that races far above our negroes are by no means fitted for republican government; and, after repeated trials, France has been obliged to adopt a severe despotism. Neither we nor they are obliged to defend despotism or slavery, in the abstract, against the cause of free government. We have only to choose between them and anarchy.

In order to make out her favorite theory of the fitness of the slave for emancipation, Mrs. Stowe represents the race as far superior to the reality. We should be sorry to think the grace of God could not make a man as good as Uncle Tom; and though God does not often give grace to endure martyrdom, because not often needed, we believe He would give it as soon to a poor negro as to the whitest of us. Mrs. Stowe's most intelligent negroes are mulattoes. However, she rather waives this discussion of capacity, and says she has committed her materials to a friend, who will write a book about it, so it may be unfair to attack her argument until fairly expressed. We hope her friend's proof of the acuteness of the race will not be drawn from such facts as, that half of a congregation, to whom the Rev. C. C. Jones was preaching against running away, from the epistle to Philemon, incautiously got up and walked out of the Church. This she takes to be proof that they saw the fallacy of that gentleman's arguments, while it simply proves they did not *like* his views. We hope Mrs. S.'s friend will not attempt to account for their degradation, by saying, as she does, on page 31, that we have "kept them from the means of education," &c. To test this, we have but to view their condition in Africa before they came into our hands, and what they are becoming in Jamaica since emancipated.

To prove the superior blessings of freedom, she contrasts the Northern and Southern States. Now we do not admit that the Northern States are so much more prosperous than ourselves. The people are better educated, but that is because, being more thinly settled, their public school system is impracticable in our case. Admitting they are more prosperous, however, for the sake of argument, unless the same proportion of the people of the Northern States were free negroes that are slaves at the South, it could not prove emancipation would benefit us. That the Northern States have no great appreciation of the benefit of such citizens, is proved by their own laws against them.

Mrs. Stowe's account of the emancipation laws is quite amusing. Having assumed in her own mind that emancipation is perfectly safe, and ignoring the fact that we presume to have an opinion of our own about our own business, she is perfectly astonished that we should have laws against it. She might have known at the outset that slave states entertained a different opinion. If they deemed free negroes perfectly safe to a community, and were actuated only by their own selfishness in keeping them slaves, all they would require would be a deed of emancipation. That they have not, according to their views, imposed unnecessary restraint, is shown by their permitting emancipation when the legislature shall pronounce it not inconsistent with the welfare of the state. Mrs. Stowe gives us a horrible case, that of Brazealle. His wife and child were made wretched for life, because he married his slave before he knew whether she could be freed, and educated her son to expect what he did not take the requisite steps to obtain for him. We suppose if a man were to adopt a son in a free state, educate and lead him to expect a fortune, and then leave him penniless by not properly writing his will, Mrs. Stowe would consider the laws to blame. That it should be the great and fundamental policy of slave states to retain negroes in slavery is but what might be expected, though Mrs. Stowe does seem so astonished at it. The indignation, however, covers the fact, which she omits, that we presume to think emancipation unsafe, and likewise helps to make it appear that we are influenced solely by hatred to the slave.

There is another branch of the subject, viewing which through a prejudicial medium, Mrs. S. has contrived to heap together several separate and distinct sophistries, so that it requires some thought to unravel them completely. The first is referable to a habit she has of looking at every evil of which she hears in the Southern States (where, of course, as everywhere else under the sun, there are evils) as the result of slavery, whether or not it can be traced back to that source. The cotton and tobacco culture being peculiarly exhausting to the soil, and fresh land out West being cheap, and easily obtained, have caused the planter, who, like all others of the human race, is actuated by individual interest, to pursue the more profitable policy of wearing out one place and buying another. Thus large portions of the older states have become unfortunately impoverished. This Mrs. Stowe accounts for by a notion she has of the "peculiarly exhausting nature of slave labor." Since to produce cotton and tobacco the soil must always be cultivated in a peculiar way, we do not see how its being cultivated by a free or slave man could make any difference. This is the first sophistry. Owing to this improvement, some of the older slave states have become unable to support their rapidly increasing population with ease, and emigration has become necessary. Now, of course, slavery, like every other state of society, has its peculiar evils, and the emigration, like the service, is involuntary. As for any sentiment about leaving their old homes, this is applicable to both whites and blacks. It may be said that it is one of the evils of this necessary emigration that it makes us look upon slaves more as a matter of gain. Although we deny that our own selfishness was the *cause* of slavery, it is not to be denied that the slave is looked upon as a source of gain. Men are often looked upon by each other as sources of gain. Manufacturers look upon the workmen as such. The question is, do the laws interfere to prevent men's using improper modes to make gain of each other? The same circumstances which excuse us in permitting them to require involuntary service of each other, excuse this compulsory emigration. Undoubtedly, the evils that arise in transporting slaves from place to place, form the worst light in which to view slavery. It has caused much separation of families; but this we shall discuss in analyzing Mrs. Stowe's arguments on the incompleteness of our slave trade. It also throws them into the hands of traders, who certainly are most apt to become imbruted, and regard them solely for gain; but while exhibiting this, Mrs. Stowe should not have neglected to say that the State of Georgia has sought to put some sort of a limitation on this, by enacting (Hotchkiss, p. 776) that they shall not be brought into this state by persons who intend to trade in them. No; it better suited her purpose to dress the thing up, detail its horrors, and, by way of throwing odium on us, call it by a term which the world considers a term of reproach, *the internal "slave trade."* Mrs. Stowe well knows how a cause can be injured by the skilful application of a bad name.

Mrs. Stowe says that the cause of all wrong, and in itself the chief wrong in the catalogue of sins against the negro, is the prejudice of caste, the antipathy of race, the feeling we crush into their souls that they are "nothing but niggers." This is assuming that we are the sole cause of their degradation, and forgetting the fact that their Maker created them "nothing but niggers," and that emancipation never can whiten those black skins, or elevate those weak intellects. Jamaica seems to prove that it deteriorates them. According to Mrs. Stowe's own showing, the free negroes at the North suffer from the antipathy of race. Even where laws are equalized, as in Massachusetts, they still are a separate caste. It is this antipathy of race which makes American slavery such a problem, one in which history, that "philosophy which teaches by example," lends us no light, for she presents no example of races with such antipathies living together on the same soil. Here we must live for the present, and we may talk and preach forever; but so long as so small a proportion of the world are sincere Christians, to be influenced by talking and preaching, the prejudice will still remain. The truth is, if anywhere mitigated, it is at the South, where they are slaves. Undoubtedly Mrs. Stowe was right when she made Evangelina St. Clair feel a love and affection for her poor nurse, which utterly astonished that good New-England Christian, Miss Ophelia. For some such reason, while Massachusetts offers citizenship to the free negro, and Virginia uses every effort to compel them to leave by heaping political disabilities on them, fifty thousand of them persist in remaining in Virginia. If the slave is anywhere to look for friends to improve his condition, certainly they are to be found among enlightened and liberal Southerners, in whom this prejudice is, as might naturally be imagined, mitigated, from having played with them, been nursed by them, and surrounded by them from childhood. Such, and those perfectly free from every taint of abolitionism, throughout the length and breadth of the South, do really feel a warm interest in the slave. Their feelings of humanity, so far from being deadened by slavery, are warmed and strengthened by it. The writer has known men of this class again and again sacrifice pecuniary interest and personal pleasure to their affection for their slaves. Mrs. Stowe asserts that there is nothing in this love and affection peculiar to slavery in distinction to servitude, and instances the attachment of some tenants on English estates to prove this. Any thing which strengthens and gives permanency to the tie between servant and master, or landlord and tenant, undoubtedly tends to render the tie one of affection as well as interest; and in England the law of entail, which keeps estates in the same family, and thereby tends to keep tenants so, has this effect. Slavery has the same tendency. Besides, there is the prejudice of race to be overcome in the one case, so the cases are not similar. That slavery should, under such disadvantages of race, produce fruit which servitude has produced among men of the same race, by the artificial aid of entail law, is certainly something in its favor.

The question then arises, if the liberal and humane are so influenced by the fact of possession, what have they done for the slave? Mrs. Stowe says they have done nothing. She holds up the deficiency of the slave code, and points out instances of imperfect execution of the acts which exist, and by way of destroying all evidence for them, says the protective acts, by a perfectly legitimate interpretation, mean actually nothing.

From her review of the protective acts of the slave code, and certain trials under them, chiefly those of Souther, Rowand, and Castleman, she draws three conclusions.

First, that masters do sometimes kill slaves by torture.

Secondly, that the fact of so killing a slave is not, of itself, held presumptive of murder in slave jurisprudence.

Thirdly, that the slave, in the act of resistance to his master, may always be killed.

Souther's case, so far from warranting her second conclusion, flatly contradicts it. We admit the case is horrible, and we heartily wish Souther had been hung; and the jury were much to blame to bring in such a verdict as the jury of the lower court did, still we do not see how Mrs. Stowe could overlook the little summary of the principle established, which usually precedes these law reports, and which says, as she has it at the head of the case in the Key, p. 79, "the killing of a slave by his master and owner, by wilful and excessive whipping, is murder in the first degree, though it may not have been the intention of the master and owner to kill the slave." The decision of Judge Field, the expounder of law, bears this out. The case only proves the jury decided in spite of law, which juries will sometimes do, both in free and slave states; and the principle which prevented Souther's being hung, "that a man cannot be tried twice for the same offence," is applicable to white and black alike. The cases of Rowand and Castleman decide no principle, but only prove the juries considered the evidence insufficient for conviction.

Her third principle she makes cover the case of Legree's beating Tom to death. The only acts authorizing the killing of a slave "*resisting*" his master are those of North Carolina and Tennessee, quoted page 83; but the "resistance" therein spoken of was by fighting or striking, and could not shelter Legree, for Tom did not resist, but submitted completely. He lay still and let Legree beat him to death. Mrs. Stowe says Legree would be sheltered by the express words of the constitution of Georgia. This constitution, as quoted by her, and as found in Hotchkiss's statute-book, only permits a negro to be killed in case of "*insurrection*," &c. Mrs. Stowe says Tom's case was insurrection; "because," she says, "if the law does not protect the master in enforcing obedience, there is an end to the whole slave power." The Constitution of the United States, Article 1, Section 8, authorizes the calling out of the militia in case of insurrection. Now we wonder if Mrs. Stowe would think Legree entitled to its aid because Tom lay still and was whipped. If all the negroes in a county lay still and were whipped, we do not see what their masters would want with the United States militia, or how they would employ them. The truth is, the penal code of Georgia authorizes no such interpretation of the word insurrection; for it defines insurrection and resistance, (Hotchkiss, p. 704,) by using them both synonymously with revolt and conspiracy. That slave states do not consider permitting masters to whip negroes to death as essential to the existence of the slave power, is evident from the case of Virginia, where the law, as decided by Judge Fields, in Souther's case, is, that "although a master may punish his slave to enforce obedience, the owner of the slave acts at his peril, and if death ensues in consequence of such punishment, the relation of master and slave affords no ground of palliation or excuse," and the crime is the highest which the law knows—murder in the first degree. The case of a negro flying is one which would come under Mrs. Stowe's definition of resistance, as much as lying still and being beat to death; but in South Carolina (case of Witsell *vs.* Earnest & Parkins—Wheeler's Law of Slavery, p. 202, and Key, p. 75,) it is decided he "cannot be killed flying from his pursuers." We think the State of Virginia likely to be better informed than Mrs. Stowe as to the essentials of slave power; and she not only prohibits the master from enforcing obedience to just commands, but if he kills a negro in attempting to enforce the most reasonable orders, the crime is still murder in the first degree. Would Mrs. Stowe think her parental authority at an end because she had no power to kill a perseveringly contumacious child? The truth is, it is not often that the disobedience of a slave to just orders will require to be so enforced, and it is probable more masters than slaves might abuse the law, so the State of Virginia humanely discriminates in favor of slaves; and though we do not wish to be sarcastically misrepresented as looking on Souther's *case* as an "overflowing example of legal humanity," we think the *Courier and Enquirer* quite right in considering *the principle established* by the judge, the expounder of law, as one of impartial justice. This discrimination in the slave's favor is quite contrary to Mrs. Stowe's assertion that our laws always favor masters where the interests of masters and slaves cross each other. The Supreme Court of Georgia decided, (case, Neal *vs.* Farmer, Cobb's Reports, vol. 9, p. 555,) that "damages for killing a negro cannot be recovered until the murderer has been prosecuted for killing to conviction or acquittal." Mrs. Stowe has probably omitted decisions of this kind in other states, whose laws we have not the opportunity of overlooking as we have those of Georgia.

A few words as to the phrase, "dying under moderate correction," as the North Carolina act phrases it, or "dying *by accident* under moderate correction," as the Georgia Constitution expresses it. Says Mrs. Stowe, (Key, p. 83,) "what rule in the world will ever prove correction immoderate, if the fact that the subject dies under it is not held as proof?" That the common law of England did not always think such proof sufficient, is shown in Blackstone's Commentaries, vol. 2, book 4, chap. 14, where, speaking of homicide per misadventure, he says, "where a parent is moderately correcting his child, a master his apprentice or scholar, and happens to occasion his death, it is only misadventure."

Thus much as to the intention of the slave code. Now a word as to its deficiencies, which Mrs. Stowe exaggerates. While we admit there are cases where passion and revenge will prevail over interest, to make a man kill his own slave, we cannot permit Mrs. S. to pass over altogether as she does the protective influence of interest. In a free state, we suppose the fact that a man would lose an income of two hundred dollars per annum by the death of any other man, would be considered presumptive evidence in his favor, if accused of murdering the man in whom he was so interested. Of course we cannot say exactly how far it is a protection, but that does not excuse Mrs. Stowe in passing over this protective influence altogether, or in saying, (p. 100,) "will any body say the master's life is in more danger from the slave than the slave's from the master?" The truth is, it is impossible to collect evidence where the protection has availed, very easy where it has not.

> "What's done we partly may compute,
> But know not what's resisted,"

or prevented rather.

Before closing this branch of the subject, it seems the proper place to notice some things in Mrs. Stowe's comments on the cases of Souther and Rowand. In Souther's case, after giving us the horrible details, she quite loses her temper, because the court was "self-possessed," and the lawyers "calmly sat and examined, and cross-examined," in accordance with the merciful laws of our country, which permit the most criminal to have the best possible defence made for him by the best counsel he can obtain. Souther's counsel tried to prove the offence, if any, amounted to manslaughter; and in free states, in murder cases, we think it likely the lawyers do the very same thing. What would Mrs. Stowe have them do? It really seems as if she would have all offenders against her beloved negroes hanged without judge or jury, or any formalities of trial, though we should be loth to suspect such a thing of so vehement an advocate of law and order——*when they are on her own side.*

The arguments of Mrs. Rowand's lawyer, in endeavoring to palliate her guilt, are not to be considered as exhibiting the light in which in slaveholding communities we view such things. When that gentleman says, "an attempt has been made to manufacture murder out of what was ordinary domestic discipline," and characterizes the event as "unfortunate and sad, he is only doing what lawyers usually do in such cases, endeavoring to make the best case possible for his clients. In a similar light must we view his injunction to the jury to remember the words of our Saviour, "Let him that hath never sinned throw the first stone;" and though Mrs. S. is surprised that no juryman indignantly resented the charge, we presume the reason was they looked on it as we do, not as an attempt to charge them with guilt, but to lighten Mrs. Rowand's burden. Dismiss the arguments of these lawyers as evidence, and we sweep away some pages of her sarcasm.

We must also notice the advertisements on page 21, of owners offering rewards for negroes dead or alive. These are mere pieces of bravado on the part of masters, and if the negroes had been killed, would have been murder according to the laws of the states in which they were advertised. We have above reviewed the laws of North Carolina and Georgia, and cited the case of the negro flying in South Carolina; but must postpone the further consideration of the subject to the next number of the Review.

Art. VI.—DOMESTIC POULTRY.

ORIGIN OF DOMESTIC POULTRY—FOUND IN AMERICA, AS WELL AS IN ASIA—IN THE ISLES OF THE PACIFIC—ANCIENT HISTORY OF THE BIRD—DESCRIPTION OF THE MORE IMPORTANT VARIETIES—THE SWAN—POULTRY AND EGG TRADE OF THIS COUNTRY, ENGLAND AND FRANCE.

THERE is no subject that has been more generally disregarded, by writers on agriculture and domestic economy, than that of *poultry;* and yet, among the minor objects worthy of the agriculturist's attention, this is by no means the least. It may well be said, that, whether on the plantation of the South, or the farms of the North, there is no branch of rural industry which, while it requires so little labor and capital, affords, at the same time, so excellent and ample a return as that of poultry-rearing. It is generally regarded as a "small business;" and it certainly is a small business, when we compare it with many other agricultural pursuits, such as raising of hogs, sheep, horned cattle, horses, &c.; but still, it is not without its importance—its great importance—and it deserves a share, at least, of the attention of all engaged in agriculture.

It is the opinion of many naturalists, that it is to Southern Asia, so noted for the variety of its gallinacious birds, and the gorgeousness of their plumage, that Europe and America are indebted for their domestic fowls; with the exception of the *turkey*, furnished by the American forests, and still abounding in them; the *Guinea fowl*, brought from Africa, where there are three or four species wandering in flocks of hundreds among the brush-wood on the banks of the rivers and lakes of Numidia, and in all the tropical regions, and even more abundantly in Madagascar; and lastly, the *goose* and the *duck*, which are our own birds. North America possessing specimens of all the genera of the web-footed tribe that are to be found in the Old World, besides several species peculiarly its own.

It has been made a question among ornithologists, whether the common domestic fowl is indigenous to America. The general opinion is, that it was unknown in the New World before the arrival of Europeans. Some of the oldest Spanish writers on America assert, that it was found among the Peruvians by those who first visited that country, and that their name for it was *guolpa*. The Inca, *Garcilusso de la Vega*, who wrote at the beginning of the eighteenth century, distinctly contradicts this, asserting that domestic fowls were brought to this continent by the Spaniards.* In his Royal Commentary of Peru,† he devotes a whole chapter to the subject of disproving the assertion of writers who had preceded him, that the domestic fowl was a native of Peru, or at least of America; but although he is very positive on the subject, his arguments are not entirely conclusive.

Oliver de Serres, in his work on Guiana, written after a voyage to that country in 1795, asserts that he saw, in Guiana, a small species of wild cock and hen, which differed from the ordinary domestic fowl only in size.

Mr. D. J. Browne, in his late work on domestic poultry, seems to adopt the popular opinion regarding the origin of our domestic fowls. "At the time of the discovery of the American continent by Europeans," says he, "the domestic fowl was not found in any part of it." He cites no authorities for this, as though it were a settled question; but there is certainly much in favor of the opposite view. Besides De Serres, above quoted, the traveller Sonnina found them in the forests of South America. Major Salines also saw wild cocks in Guiana, in 1776. Cuvier is fully of the opinion that the wild cock, *gallus gallinaceus*, was found in the forests of America when it was first discovered. He cites many authorities for this opinion, and concludes as follows: "It appears, then, probable, that wild cocks are equally found in both continents. There appears no reason whatever to reject the testimony of these travellers."‡

The Jesuit Acosta asserts that hens existed in Peru before the arrival of the Spaniards.§

The idea that all the animals of America must have originally come from Asia, is one which, in the present age, is rapidly losing ground. "There is only one way," says Agassiz, "to account for the distribution of animals as we find them, namely, to suppose that they are *autochthonoi*, that is to say, that they originated like plants, on the soil where they are found."‖ To attempt to explain the geographical distibution of animals on any other supposition, only leads one into interminable discussions which cannot be sustained by geological, ethnological, and palæontological facts. The old assumption that all of our present existing birds must have had their progenitors in Noah's ark, is sustained neither by science, nor by a fair interpretation of the Sacred Scriptures. The Scriptures nowhere say that there was but one creation, and that only in the old world; and geology and ethnology afford overwhelming arguments against that assumption. God seems to have created for each clime animals and plants adapted to it; and not to have created in a single locality, and that in or near the torrid zone, animals which he intended for the temperate and even the polar regions of the earth.*

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* Histoire des Incas, p. 1089.

† Chaps. 23, book ix.

‡ Cuvier's An. King., vol. 3, p. 178.

§ Cuv. An. King., vol. 3, p. 176.

‖ Principles of Zoology, p. 211.

Upon the supposition of a single creation of animals, it would be very difficult to explain how it is that domestic fowls were found in many of the remotest islands of the Pacific Ocean, when first visited by Europeans. The first discoverer of the Sandwich Islands found the domestic fowl there, which, according to the traditions of the islands, had been there as long as the people themselves. Traditions declare that the progenitors of the inhabitants of the Sandwich Islands came from the Society Islands, bringing with them hogs, dogs, and a pair of domestic fowls.

Captain Cook discovered the domestic fowl on many islands that had never been visited before by civilized men; and so widely were domestic fowls found to be distributed among the islands, by the earliest navigators, that it is difficult to imagine that they must have been carried thither. The only rational supposition is, that they were created where they were found, like the plants that sheltered them from the rays of the scorching sun. "There is only one tame species of birds, properly speaking," says the journalist of Cook, "in the tropical isles of the South Sea, namely the cock and hen. They are numerous at Easter Island, where they are the only domestic animals; they are likewise in great plenty in the Society Islands and in the Friendly Islands, at which last place they are of a prodigious size; they are also not uncommon at the Marquesas, Hebrides, and New Caledonia; but the low islands, and those of the temperate zone, are quite destitute of them."†

As to the ancient history of fowls, we shall not attempt to write it. They are, probably, as old as any race of birds now existing. They seem, like the cat and dog, to have been among the first companions of man, for they find honorable mention in even the oldest records—Chinese, Assyrian, Jewish, and Egyptian. Their profiles are found on the monuments of Nineveh, now undergoing exhumation; they are also seen on those of

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* Although Buffon, Sonnerat, and others contend for one original source of our domestic fowls, Cuvier, who certainly had better means of judging, is of the opposite opinion. "It certainly appears more reasonable to admit, in this genus," says he, "several sources, several primitive species, the diversity of which form our peculiar races."—Cuvier, An. King., vol. 3, p. 173. M. Temminck is also of the same opinion.

† Dampier found them at Pulocondor, Timor, and St. Jago. Voyages, vol. 1, p. 392. See also Cook's Voyages, vol. 3, p. 463; Anson's Voyages, p. 416; Keate's Narrative, p. 300.

Egypt, of a date thousands of years before Christ; they are honored with a place in Holy Writ; and Homer has not thought them unworthy of a place in his immortal epic. Aristotle mentions them as things as old as the world itself; and, in short, the domestic fowl has been named by almost every poet, historian, and philosopher, either incidentally or specially, of ancient times. It has ever been the most honored of all birds. They can boast of the highest antiquity.*

In a paper on domestic poultry, a description of the most important species cannot be omitted. We shall, therefore, briefly enumerate and describe some of the principal.

1. The *Javanese Jungle Fowl* is found wild in the Isle of Java, and is about the size of the common bantam—the black-breasted red varieties of which, with a dark steel blue band across the wings, it closely resembles.† The space around the eyes and throat are bare, the comb is much developed, and deeply serrated on the upper ridge, and the wattles are rather large. Long, clear, brilliant gold and orange plumes cover the neck and rump. The upper part of the back, over which fall the plumes of the neck, is of a bluish black. The middle and lesser wing coverts are of a rich deep chestnut, with the webs of the feathers disunited; greater coverts, steel blue; secondaries, ditto, with a chestnut border. The quills are of a brownish black, edged with pale reddish yellow. The tail is black, glossed with changeable green and blue; breast and under parts black. The contour is exceedingly graceful, and every action animated and lively.

The Javanese jungle fowl is regarded by Mr. Browne as the main, if not the only source of the Bantam breeds. The very term Bantam denotes the Javanese origin, Bantam being the name of a town and district in the north-western part of Java, belonging to the Dutch, whence these fowls were exported to England, where the English called them Bantams, from the place whence they were brought. The elegance and diminutive size of the fowls rendered them favorites, and in due time the name of Bantam came to be conferred on all small or dwarf fowls indiscriminately, whether of the genuine Javanese blood or not.

The domestic Bantam stock, as every one knows, breeds freely with ordinary fowls, producing fowls of an intermediate size; and the same is also true of the genuine Javanese jungle fowl.

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* "The domestication of the cock ascends to times of such remote antiquity, that it is hopeless to determine its era; and it is more than probable that the primitive stock will never be ascertained."—Cuvier, An. King., vol. 3, p. 171.

† These descriptions we condense from the very able work entitled "*The American Poultry Yard*," by D. J. Browne, Esq., author of the *Sylva Americana*. Mr. Browne's work ought to be in the hands of every farmer in our country.

2. *Sonnerat's Jungle Fowl.* The male of this species is of a size intermediate between the Bantam and the game cock. The contour is peculiarly light and graceful; the comb and wattles large; the tail of a deep rich refulgent green, and the entire plumage of the fowl glitters like gold in the rays of a bright sun. The size of the female is about one third that of the male.

Under the term "Sonnerat's jungle fowl," two species of the jungle fowl appear to have been confounded together—at least by most naturalists. Sonnerat and many other naturalists have contended that to this species alone are our breeds of domestic fowls to be traced; but the Javanese or Vankiza jungle fowl, and the Great Malay, in the opinion of Mr. Browne, present strong claims. The *gallus sonneratii* is very abundant in the Western Ghauts mountains, where there are two varieties—a long legged species in the valleys, about 2,000 feet above the sea, and a short legged, on the sides of the mountains, 4,000 feet over the sea. They are the favorite fowls of the cock-fighters of Hindostan.

There are several other varieties of the jungle fowl, but we must refer the curious reader to works of ornithologists for their description. The varieties of the domestic fowl are very numerous, each country having some peculiar to itself. It is only to the principal of these varieties that we can invite the attention of the reader.

3. The *Spanish Fowl*, the *gallus gallinaceus* of naturalists, is a noble species, possessing many excellent qualities. The thorough breeds are entirely black; hence they are called the Black Spanish Fowls. They are very large birds, both the male and the female, the latter producing very large white eggs of a peculiar shape, being very thick at both ends, and yet tapering off a little at each. They are a bird not adapted to a cold climate, as the northern part of the United States.

4. The *Dorking Fowl*, so called from Dorking, a town in Surrey, England, is regarded by many as the breed most desirable for stocking poultry yards. They are large bodied, and of better proportions, according to their size, than any other variety. They are all more or less white, with short white legs, and thickly feathered. The cocks are magnificent. At maturity the weight of a Dorking varies from 5 to 8 lbs., and full-grown capons have been known to weigh from 10 to 12 lbs. The eggs are large, and of a clear white, usually. The hens are not what are called "universal layers," though they produce eggs in reasonable abundance. Dorkings are distinguished by their having a supernumerary toe on each foot. The pure white Dorkings have five toes, and are the original breed, though this is questioned. The first Dorkings were brought into the United States in 1840.

5. The *Cochin China Fowl*, the *gallus giganteus*, is said to have been brought from Cochin China. This is doubted, though an oriental origin is admitted. Many exaggerated accounts have been given of this bird. In size it has been compared to the ostrich, and called the "ostrich fowl." It has also been said that its wings have an additional joint. As to color, it is altogether a flame-colored bird.

According to the English accounts, the males weigh from 12 to 15 lbs., and the females from 9 to 10. Mr. Browne thinks this an exaggeration, and that the average weight is only 7½ lbs. for the males, and 6½ for the females. The average weight of the eggs is about 2 ounces. They are oval, nearly equally rounded at each end, usually of rich buff color, but sometimes white. This breed of fowls has undoubtedly great merits; but Mr. Browne is of the opinion that they "are not the most desirable for general use." The Cochin China fowl is said to have been presented to Queen Victoria from the East Indies.

6. The *Kulm*, or *Great Malay Fowl*, is in high repute with many writers, as a supposed connecting link between the wild and the tame races of fowls. Something like this breed is still found in the East. As to size, this bird has nothing to recommend it; the hens however are excellent layers, and their eggs are fine. The Kulm fowl is kept in a domestic state in India, Java, Sumatra, Malacca, and in Cochin China. It has long been known in England, although it is only within the last few years that much attention has been given it in America. The males, in their natural altitude, often considerably exceed two feet in height from the ground to the crown of the head. The neck is long, and covered with plumes of a pale golden reddish color. The body is stout, and the legs long, but very robust. The hen is considerably less in size than the cock. Its eggs are of a good size, and of a rich buff or brown color.

7. The *Pheasant Malay Fowl* has had the honor of giving occasion to more disputes among learned chicken amateurs than any other bird of its tribe; the great question being, whether it is a cross between the pheasant and the common fowl—"a mule between the common hen and the cock pheasant." We do not know whether this great question has ever been heard of by any of our readers; but we can assure them, that it has at times created great excitement and uproar in chickendom. Dealers in chickens have been in the habit of praising these "mule" Pheasant Malay fowls to their customers, as being half pheasant; and buyers, delighted with the idea, have readily paid down their money, thinking that they were getting a nice fowl, and a taste of a pheasant into the bargain. Mr. Browne scouts the idea of these fowls being hybrids.

The Pheasant Malays are large, well flavored, and good layers. Six of the eggs weigh nearly 12 ounces. The cocks have a dark red plumage, and white legs and skin.

8. The next fowl described by Mr. Browne is the common *Game Cock*—the *coq-anglais* of Buffon, and the *gallo peleador*, or fighting cock, of the Spaniards. This bird approaches more nearly to the Malay and Pheasant Malay than any other variety of fowl. There are a great many varieties, the nice distinctions of which are only studied by amateurs in cock-fighting—a barbarous kind of amusement, which ought to be prohibited by law in all countries, and which we hope will soon become obsolete. Many noble families in Europe still preserve with great care the best varieties of these fowls. The Earl of Derby is said to be a great admirer of them, and a *connoisseur* in raising them; but whether, like *Santa Anna*, he spends his Sundays at the cock-pit, "report saith not."*

Mr. Browne gives a very minute and elaborate description of these birds, in the true spirit of a naturalist. He endeavours to uphold its fair fame, and to eke out to it a full allowance of sympathy and stern justice, maintaining that " the game-cock is by no means the aggressive, sanguinary tyrant that he is commonly represented to be." " He will submit," says he, " to no insult or intrusion within his own domain; but neither does he offer any unprovoked assault. If his antagonist fly, he is satisfied, and does not pursue him, in order to perpetuate any bloody revenge. Other poultry that are killed by game-cocks generally draw down the punishment upon themselves by their own imprudent and continued aggression. The bird, too, is as enduring of pain as he is bold in combat." Mr. Browne does not, however, hold them up as perfect " patterns of gentleness and forbearance."

The flesh of the game-cock is excellent, but the eggs are small. Their pugnacious qualities are the most remarkable traits about them; but, considered in an economical point of view, they are hardly worth the attention of the former.

9. The *Gold and Silver Hamburgh Fowl* is a handsome bird, but small bodied. It is remarkable for being what the chicken fanciers call an " everlasting layer," the hen, if kept in a warm situation, continuing to lay eggs throughout the whole year.

It would be tedious to enumerate the half of all the different varieties of domestic fowls now known; we shall therefore only note some few others the most remarkable.

The *Shanghae Cochin China Fowl*, originally from Cochin China, whence it was taken to Shanghae, and thence to Liverpool, was first introduced into this country in 1848. It is large, and a great layer. It has been known to lay 120 eggs in 125 days. Its general plumage is of a bright yellow or gold color.*

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* Henry VIII., James I., and Charles II., of England, were all very fond of cock-fighting, and encouraged it. Cromwell very properly abolished this barbarous amusement.

The *Plymouth Rock Fowl*, so called, is another remarkable bird. It is a mixture of fine primitive races, the Cochin China, Dorking, Malay, Turkish, and Indian. It measures from 32 to 35 inches high, and weighs about 10 lbs. The pullets begin to lay at five months old. The demand for this fowl has, of late, exceeded that of all others.

The *Ostrich Fowl* is a most valuable variety, said to have originated in Bucks County, Penn. They are good layers, and their eggs weigh 4½ ounces each.

The *Booby Fowl*, is a large Asiatic breed. The males weigh from 9 to 10 lbs., and the females from 7 to 8 lbs. They are prolific layers; their eggs weigh over 3½ ounces, and measure three inches in circumference.

The *Bucks County Fowl* is another monstrosity, first brought into notice in Bucks County, Penn. It is of great size, and its eggs are large and well flavoured. It weighs from 8 to 10 lbs.

The weight of many varieties of domestic fowl is a subject which has led to much exaggeration, though as we have shown many varieties attain to a very large size. In a work on poultry, published by Mr. Dixon, we find some curious statistics on the subject. From his account it appears that the average weight of some of the varieties is as follows:

Pheasant Malay cocks, 7 lbs.; speckled Surrey hen, 5¾; Spanish hen, 5; Dorking cocks, 7 lbs.; Dorking hens, 6¾; the cock Turkey, 17¾; Turkey hen, 10lbs.; Geese from 10 lbs. to 12lbs.; Cochin China fowls, from 4½lbs. to 6½lbs.; Malays, from 5½lbs. to 6⅔lbs. Other varieties weigh from 2lbs. to 4lbs. Mr. Dixon ridicules the accounts of Cochin China fowls weighing from 10lbs. to 15lbs. The London Agricultural Gazette, for September 30, 1848, stated that the male Cochin Chinas weighed from 12lbs. to 15lbs., and the females from 9lbs. to 10lbs.; but persons anxious to see such birds never could get a sight of them. Mr. Samuel Allen, who has made some valuable additions to Mr. Browne's book, also doubts the enormous size ascribed to the Cochin China variety.

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* Most writers on poultry do not recommend the gigantic varieties as the best for eating and profit. Their flesh is usually coarse, oily, and rank. Mr. Browne observes, speaking of the Cochin China fowl, that, "in his humble judgment, neither this, nor any other breed of excessively large fowls, is the most desirable for general use." The Committee on Poultry of the New Hampshire State Agricultural Society, urge the careful breeding of the domestic varieties of fowl—the Dorkings, Bolton Grays, and their crosses—in preference to the Giant Chinamen. Neither profit nor good taste, they say, suggests the breeding of China Hens. They are not great layers, nor prolific, are long in getting their growth, and are great eaters; upon the table, are coarse and stringy; and of a certainty are no ornament to the farm yard, their form being awkward and ungainly, and their crow being, as has been well observed, "not the honest Saxon crow, expressive of daybreak, love, war, and animal spirits, but a horrid ejaculation, between a Chinese sentence, as described by missionaries, and a badly blown dinner horn." If these things are so, why is so much attention paid to the breeding of them? This is a plain question, and shall have a plain answer. It is because speculation, curiosity and fashion will govern people."

Among the great variety of domestic fowls, one is often perplexed to know which are the best for breeding, all things considered. The breeding of fowls, says Mr. Samuel Allen,* an able writer on the subject, is with many more a matter of fancy than of the intrinsic value of the different kinds; and the safest way to give advice on the subject is to say, let each individual select that variety which he likes best; let him breed and compare the merits or demerits of each until his judgment is well founded upon actual experience, holding rigidly to the principle of not crossing different breeds for permanent use, but keeping them, if possible, entirely distinct, for in no other way will the test be a fair one. He discourages all attempts to raise the Cochin China, Shanghae, Great Malay, Jago, and other gigantic breeds, which are produced by crossing with one another, contending that large size alone, in any fowl, is not a desirable quality.

The *Dorking* is a fowl, all things considered, says Mr. Allen, much to be preferred to all others for profit. They are scarce, and bear a high price. For eggs, the Polands are undoubtedly the best; and next to these the Dorkings. The game fowl, crossed with the Dorking, is also a very desirable bird; and lastly the Dominique fowl is another breed coming more and more into favor.

As to the common Turkey, Mr. Allen prefers the black or dark coloured to all others, as they are generally the largest birds, hardy, and equal to the other kinds as to laying, as well as in the flavor of their flesh. Next to the black, he prefers the buff-colored. White turkies are the poorest of all.

The *Guinea Hen* is, of all domestic fowls, the greatest layer; but it is also the most destructive to gardens and cultivated fields. They will often devour or destroy, in a few hours, more than all their eggs and carcasses are worth. Their flesh is decidedly poor.

As for the *Peacock*, it is at the same time the most beautiful and the most worthless of all domesticated birds. It is a native of India and the Indian Islands, where it is found in almost incredible numbers. A writer in the American Agriculturist has so well described the qualities of this bird that we cannot avoid copying his description: "It is idle and vagrant in its habits, mischievous in its propensities, and of little utility either in its carcass or its eggs. It is tolerant alone for its gorgeous display of plumage, and the showy splendor of its attitudes. I have kept them many years; and every year of my observation only confirms in my mind the truth of the ancient proverb, applied to the bird: '*It has the plumage of an angel, the voice of a devil, and the maw of a thief*.' They are destructive in the garden, vindictive and quarrelsome among other poultry, without either merit of bravery or energy of defence. Yet, after all, I like them; they make a beautiful show among the poultry, and add to the infinite and delightful variety of animated creatures with which a kind Providence has blessed our vision."

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* Appendix to Browne's American Poultry, &c.

Mr. Allen recommends the *Bremen Goose*, crossed with the China variety, as the best and most profitable. Geese can never be raised to any advantage where they have no good water privileges. The white China goose is the variety adapted to the South. With proper feeding and care, it will lay nearly the whole year.

Regarding ducks, nearly the same remarks as to raising, apply to them as to geese. Without a good pond or a running stream, it is vain to attempt to raise them. The Muscovy or Musk Duck is a good variety to cross with the common varieties.

There remains to be mentioned but one other of the domesticated birds—the *Swan*.

> "Emblem of modest grace,
> Of unaffected dignity and ease,
> Of pure and elegant simplicity."

The swan is pre-eminently the bird of poetry and of poets, who have penned countless hexameters in portraying its superb and indefinable beauty—its arched neck, its snowy wings, its downy breast, and the silent majesty of its movements on the still bosom of its favorite silvery lake.

The swan is a perfectly untameable bird; and yet we have what are called "tame swans," "domestic swans." This contradiction will be explained when we come to understand what our "tame swans" really are. If we were to catch a hyena, and cripple him so that he could not run away, we might then, perhaps, call him a "tame hyena." Our "tame swans," by a refinement of civilization, are *crippled* swans. It is not generally known, we believe, that to prevent these beautiful birds from leaving the locality assigned to them by their owners, they are subjected to the cruel operation of having a portion of their wings amputated! Mr. Browne, as if conscious of the superior intellect of these almost divine birds, recommends that "the operation be performed before they are taken to their intended home, in order that they may have the fewest possible disagreeable reminiscences connected with the spot where they are to spend their lives." "The amputation of the part of the wing which corresponds to our hand," he adds, "is quite sufficient to prevent the flight of the short-winged species, so far as migration is concerned—disfigures them less than the *closer pruning*, and still leaves them the means of escape from a dog—allows them now and then, in their gambols, to *fancy* they are free, and to enjoy a sort of half-run, half-fly, from the lawn into the water."

This is treating the barbarism very coolly, it must be confessed. If those who delight so much to see the beautiful swan floating on limpid pools or artificial lakes were to be informed that all their delight was at the expense of the barbarous mutilation of the poor birds' wings, they would enjoy much less the spectacle.

Mr. Browne further adds: "But the loss of the last wing will not be enough to prevent their flight. It is recommended that the female be pinioned at the wrist, the male at the elbow, trusting to their mutual attachment to keep the less maimed bird from deserting her mate. But however it be done, let it be set about in a workmanlike manner; no chopping, no hacking, no hewing, no butchering. *Many cygnets are annually killed by the clumsy way in which their wing is lopped off.* They suffer from the shock to their nervous system. A skilful operator will feel for the joint, divide the skin, and turn the bone neatly out of the socket."[*]

Such is the savage custom of taming swans for gentlemen's pools and artificial lakes. Such things practised in Turkey or China would be called barbarities. It is bad enough to confine birds in cages, but to amputate their beautiful wings, *secundum artem*, is only refined cruelty.

The average weight of the swan is from 25 to 28 lbs. The flesh, when properly cooked, is said to be delicious—unsurpassed.

We close this article, with some observations on the profits of poultry raising, and the egg and poultry trade.

It is the opinion of Mr. Samuel Allen, who has contributed a very valuable appendix to Mr. Browne's work, and who is well known, in the agricultural world, as "an experienced and successful breeder of stock, as well as of the choicer varieties of domestic fowls," that most of the accounts published in agricultural journals, regarding the profits of poultry raising, are entirely unreliable; that they "will not bear the close scrutiny of those who have attempted the business on a large scale."

"Counting chickens before they are hatched," has ever been the besetting sin of poultry raisers. The following, from the *London Agricultural Gazette*, is a specimen: The writer tells us that "hens may be made to sit four times in the season. Each time they sit they are to hatch two broods, that is, eight broods of three weeks each per annum, by the withdrawal of the first brood of chickens, and replacing them with fresh eggs. The kidnapped chickens are to be reared by an artificial mother. Now, if the hen hatches only ten chickens for each set of eggs, which is considered a low estimate, this gives 80 chickens per annum for each hen, or 400 in the course of the year, for the expense of maintaining five hens, and, it is presumed, one cock, (though the poor fellow is not mentioned,) or more than one chicken per day ! ! !"

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[*] Browne's American Poultry Yard, pages 247, 248.

"Alas for such extravagance !" exclaims Mr. Allen. "Hens are made of flesh, blood, bones, and feathers, not of wood, hot water, India rubber, sheep skins, nor iron. Accounts like the above, which we often see going the rounds in agricultural papers, it is almost needless to say, deserve only to be treated with ridicule and disrespect."*

Mr. Allen admits "that there is profit attending poultry raising, when undertaken on a moderate scale ; but when the business is attempted with a large number of barn-yard fowls, obtained at a heavy cost, including the purchase of food, accommodations, &c., I am free to venture the opinion," says he, "that speculations of the kind will prove fruitless in the end."

The raising of geese simply for their feathers, which bear a high price, has been found to be very profitable. Mr. Allen cites a case of a farmer recently in the western part of Pennsylvania, who went into the business extensively, and raised 2,000 geese in one year, from which he obtained a ton of feathers, valued at $1,000. This supposes one pound of feathers to the goose, at 50 cents per lb. Whether geese will average a pound of feathers each is questionable. The farmer allowed them to attain their full size, and then he killed them, stripped them of all their feathers, and threw away their carcasses.†

It is much to be regretted that the United States census for 1850 furnishes nothing regarding the poultry and egg trade of this country. That of 1840 included statistics on the subject ; and the published returns gave $12,176,170 as the value of the poultry in all the states and territories. Since the census of 1840, the amount has probably doubled.

Nothing but scattering statistics on the subject can be obtained. We shall give all that we can collect.

The amount of poultry sold in the city of Boston during the year 1848, was $1,000,000.‡ As more attention has been paid to the raising of poultry during the last ten years than ever before, we may safely conclude from this, and from the great increase of the population of the Union, that the poultry trade has at least doubled ; which would make it amount, for the year

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* Appendix to Mr. Browne's Work, p. 301.

† Allen's Appendix, page 305.

‡ Proceedings of the State Board of Agriculture for 1852.

1850, to more than $24,000,000. By reference to the agricultural statistics of 1840, it will be seen that the value of poultry for the State of New-York was $2,373,029, which was more than the value of all its sheep and neat cattle, and nearly five times the value of all its horses and mules. The total value of poultry in the Union, according to the census of 1840, was as follows:

Maine,	$ 123,171	Kentucky,	$ 536,439
New-Hampshire,	97,642	Tennessee,	581,531
Vermont,	176,437	Louisiana,	273,314
Massachusetts	540,295	Mississippi,	369,481
Rhode Island,	61,492	Alabama,	829,220
Connecticut,	176,659	Missouri,	230,283
New-York,	2,373,029	Indiana,	393,228
New-Jersey,	412,487	Illinois,	335,968
Pennsylvania,	1,033,172	Michigan,	82,730
Delaware,	47,465	Arkansas,	93,549
Maryland,	219,159	Florida,	61,007
Virginia	752,467	Wisconsin,	16,167
North Carolina,	544,125	Iowa,	17,101
South Carolina,	590,594	District of Columbia,	3,092
Georgia,	473,158		
Ohio,	734,931	Total,	$12,176,170

It has been too much the custom of every body to regard the poultry and egg trade as a very small matter; but any one who will carefully look into it, will soon perceive that it is, in fact, much more important than many other branches of trade that are regularly reported. We are, therefore, the more surprised that no notice was taken of it in the census of 1850.

In regard to the egg trade, the statistics would be truly wonderful, if they could be fully determined. It is estimated, by the Committee of Supervision of the New-England Convention of Domestic Fowl Breeders, held in Boston on the 15th of November, 1849, that the eggs consumed, in Boston alone, in 1848, amounted to $1,000,000. The population of Boston is 136,000. There are 63 cities in the United States, each having a population of more than 10,000 inhabitants. The total population of these 63 cities, which may be called the urban population of the United States, is 2,805,167. This population, taking Boston as the standard, would consume eggs annually to the amount of over $20,000,000. Taking the urban population from the entire population of the United States, 23,191,074, we have for the village and rural population 20,386,907. Supposing that these consumed only as many as the small urban population, we must suppose that the value of all the eggs consumed in the United States amounts to more than $40,000,000 annually.

The value of the eggs brought to New-York city by way of the Hudson river alone, in 1851, was $220,945. In 1848, there was one dealer alone in Philadelphia, who sent to the New-

York market, daily, nearly 100 barrels of eggs. In 1851–52, Cincinnati exported 9,160. There were received at Buffalo from the lake, in 1851, 12,818 barrels. The egg trade of New-Orleans, probably, amounts to more than half a million of dollars annually. The eggs imported into the United States from Canada, in 1851, amounted to $38,008. The value of the eggs received at Buffalo from the lake, in 1852, was $76,860.

So very imperfect are the statistics of the United States regarding this branch of trade, that no certain results can be obtained. In England, France, and other countries of Europe, the trade is very extensive. Mr. M'Culloch says that England pays annually for eggs brought from Ireland alone, from £200,000 to £300,000—from about $1,000,000 to $1,500,000. England imported from Belgium, in 1840, 96,000,000 of eggs, the duty on which, at one penny per dozen, amounted to £34,000.

England also imports them from France in large quantities. Many vessels are employed in the egg trade between England and most of the ports between Calais and Cherbourg. The amount imported from France, in 1844, was 67,487,920. The value of the entire egg trade of Ireland is estimated at more than $2,000,000 annually.

The exportation of eggs from this country is very considerable. Vast quantities are constantly exported from New-York and Boston, chiefly for San Francisco. A single ship left Boston on the 15th of August with 1,049 boxes for San Francisco; and the reports of exportations show that ships leaving New-York and Boston take out, almost every week, quantities varying from 10 to 20 barrels each.

Art. VII.—THE STATE OF IOWA.*

HISTORY, LAWS, EDUCATION, RELIGION, SOIL AND PRODUCTIONS—POPULATION AND GENERAL STATISTICS.

This state takes its name from that of one of its beautiful rivers which runs entirely across its present boundaries, and empties itself into the Mississippi. With Michigan and Wisconsin, it was originally comprehended under the general name of Territory of Michigan. In 1836 the State of Michigan was admitted into the Union, and the territory of Wisconsin was organized, embracing within its limits the present State of Iowa. The population had so greatly increased, that on the 4th of July, 1838, Wisconsin was divided by the line of the Mississippi, and the territory of Iowa was organized. In 1846, so great had been the increase of this latter territory, she applied and was admitted into the Union under the name of "The State of Iowa," making the 28th sovereignty in the confederacy of States. Before proceeding any further, we think a brief history of the extinguishment of the Indian title, and the removal of the Indians from this state, may be of general interest. The whole territory north of the State of Missouri was in indisputable possession of the Indians as late as the year 1832. The Sauks or Sacs and Foxes, who were the principal tribes, had ceded to the United States, in 1830, the last of their lands east of the Mississippi River. They were still unwilling to leave their ceded territory in compliance with the treaty which led to the "Black Hawk War," resulting, after several fierce skirmishes, in the total defeat of the Indians at the battle of the Broadaxe, in Wisconsin, on the 2d August, 1832. To secure the future tranquillity of the invaded frontier, and as an indemnity for the expenses of the war, a strip of country on the west of the Mississippi, extending nearly 300 miles north from Missouri, and about fifty miles in width, commonly known as the "Black Hawk Purchase," was ceded to the United States. Further purchases were made in 1836 and in 1838. In 1842, an immense tract, containing some fifteen millions of acres, was purchased of the Sacs and Foxes, for the sum of one million of dollars. This tract now contains some of the finest counties in the State of Iowa, though a large part of it was occupied by the Indians up to 1845. The Pottawattamies, who inhabited the south-west corner of the state, and the Winnebagoes, who occupied the "Neutral Ground," a strip of country on the northern borders, were peaceably removed, and the Indian title became extinct within the established limits of the State of Iowa in 1848. These limits, as defined by the Constitution, are as follows:—"Beginning in the main channel of the Mississippi River, at a point due east of the middle of the mouth of the main channel of the Desmoines River; thence up the middle of the main channel of the said Desmoines River, to a point on said river where the northern boundary line of the State of Missouri, as established by the Constitution of that state, adopted June 12th, 1820, crosses the said middle of the main channel of the said Desmoines River; thence westwardly, along the said northern boundary line of the State of Missouri, as established at the time aforesaid, until an extension of said line intersects the middle of the main channel of the Missouri River; thence up the middle of the main channel of the said Missouri River, to a point opposite the middle of the main channel of the Big Sioux River, according to Nicolett's map; thence up the main channel of the said Big Sioux River, according to said map, until it is intersected by the parallel of forty-three degrees and thirty minutes north latitude; thence east, along said parallel of forty-three degrees thirty minutes, until said parallel intersects the middle of the main channel of the Mississippi River; thence down the middle of the main channel of said Mississippi River, to the place of beginning."

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* For the other states see previous volumes.

Permission to settle in this state was first granted to the white man on the 1st June, 1833. The rapidity with which the torrent of immigration poured into this "Western Paradise," as the earlier travellers in this locality designated it, may be inferred from the fact, that the official returns of the territorial census taken in May, 1838, gave her a population of 22,859; and that of the United States census, taken in 1840, 43,112; showing an average annual increase of over 44 per cent. Since that time, she has bounded forward with an extraordinary rapidity, numbering, by the census returns taken June, 1850, within her borders, a population of 192,214; exhibiting an average annual increase for the decennial period ending in 1850, of over 44 per cent.!!!

If it is a fact—and we are of the opinion a close observation will carry conviction to every unprejudiced mind, and establish it as such—that those who migrate, natives of the United States especially, are among the most energetic, enterprising and ambitious portions of the community. This state is destined to attain a high rank in the confederacy; for we find by reference to the nativities of her inhabitants, she is very fully represented by all sections of the Union:—The Northwestern States, Ohio, Indiana and Illinois, contributing to her population 57,885; the Western States, Kentucky and Tennessee, 13,268; the Southern Atlantic and Gulf States, 13,268; the Middle States, New-York, New-Jersey, Pennsylvania and Delaware, 24,516; and the New-England States, 5,535; being about 60 per cent. of her population.

FERTILITY OF THE SOIL.—Dr. Owen, in his Geological Survey of Wisconsin, Iowa and Minnesota, says:—"The carboniferous rocks of Iowa occupy a region of country which, taken as a whole, is one of the most fertile in the United States. No country can present to the farmer greater facilities for subduing, in a short time, wild land. Its native prairies are fields, almost ready made to his hands. Its rich, black soil, scarcely less productive than that of the Cedar Valley, returns him reward for his labor a hundred-fold. The only drawback to its productiveness is, that on some of the higher grounds, the soil, partaking of the mixed character common to drift soils, is occasionally gravelly; and that here and there, where the upper members of the coal measures prevail, it becomes somewhat too siliceous. The rural beauty of this portion of Iowa can hardly be surpassed. Undulating prairies, interspersed with open groves of timber, and watered with pebbly or rocky-bedded streams, pure and transparent; hills of moderate height and gentle slope; here and there, especially towards the heads of the streams, small lakes, as clear as the rivers, some skirted with timber, some with banks formed by the greensward of the open prairie;—these are the ordinary features of the pastoral landscape.

"For centuries, the successive natural crops of years, untouched by the scythe, and but very partially kept down by the pasturage of buffalo and other herbivorous animals, have accumulated again matter on the surface-soil to such an extent, that a long succession, even of exhausting crops, will not materially impoverish the land. The prairie-sod, matted and deep-rooted, usually requires from six to eight yoke of oxen effectually to break it up. The future farms of Iowa, large, level, and unbroken by stump or other obstructions, will afford an excellent field for the introduction of mowing and reaping machines, and other improved implements calculated to save the labor of the husbandman; and which, in new countries reclaimed from the forest, can scarcely be employed until the first generation shall have passed away."

EDUCATION.—The first law for the establishment of a system of common schools was adopted by the Territorial Legislature of Iowa, on the 16th January, 1840. Immediately subsequent to her admission into the Union, this law was revised and perpetuated by the supplemental act of February 25, 1847. In this form it continued in force until superseded by the act of January 15, 1849. By a joint resolution of the General Assembly, approved February 5, 1851, the last-mentioned law, with some slight amendments, was made a part of the "Code of Iowa."

The school fund of this state, derived from its school lands, is large and ample. The appropriation of the public lands by Congress for this purpose is very liberal. Besides the amount of land set apart specifically for educational purposes, both primary and university—being every sixteenth section—a certain per centage also of the moneys derived from the sale of all public lands by the General Government within the state, is to be appropriated to the school fund. In addition to this, by the "Code of Iowa," it is made incumbent on the county judge of each county, at the time of levying the tax for county purposes, to levy a tax for the support of schools within the county, of not less than one half mill, nor more than one mill and a half on the dollar; that is, not less than one-twentieth, nor more than three-twentieths of one per cent.—on the assessed value of all the real and personal property within the county, receivable only in cash.

As indicative of the high estimation placed upon the value of learning in this state, we may remark that the "Superintendent of Public Instruction" is the highest salaried officer within her limits.

By the "Code of Iowa," there is to be established at Iow[illegible] City, an institution to be called the "State University of Io[illegible] with such branches as, in the opinion of the General As[illegible] the public convenience may hereafter require. Th[illegible] buildings at Iowa City, together with the ten acres o[illegible] which the same are situated, are granted for the use o[illegible]id university. The two townships of land granted by act of Congress of July 20, 1840, for the support of a university, is donated to the said State University, to be and constitute a permanent fund, the interest of which shall be applied exclusively to the support of said university, and its branches.

The condition of the grant is, that the university shall, as soon as the revenue amounts to $2000 per annum, commence and continue the instruction, free of charge, of fifty students annually, in the theory and practice of teaching, said students to be selected, under certain regulations, from the different parts of the state.

From a report made to the Legislature by the Honorable Thomas H. Benton, Jun., "Superintendent of Public Instruction," Dec. 6, 1852, it appears that the agent appointed by the state had completed the selection of the university lands granted by Congress, amounting to upwards of 46,000 acres; that by a resolution of the Board of Trustees no sale was to be made for less than $5 per acre; that in the fall of 1851, 685 acres had been sold at a fraction over $5 per acre, and that on the 28th February, 1852, the trustees had raised the minimum price to $10 per acre.

The code also divides the state into three districts, in each of which there shall be established a normal school for the education of common school teachers and others. Each school shall educate eight teachers, free of charge of tuition, who shall teach, for the term of three years, common schools within the state. Said schools shall be established at Andrew, Oskaloosa, and Mount Pleasant. The Oskaloosa normal school commenced its first session on the 13th September, 1852, with forty-seven pupils.

From an abstract of the Annual Report of the School Fund Commissioners, ending October 31, 1852, it appears there were —organized districts, 1,560; persons between five and twenty-one years, 85,060; district schools, 1,266,; pupils in schools, 33,033; male teachers, 806; female teachers, 525; compensation of male teachers per month, $13,208 41; female teachers, $4,453 58; number of days schools have been taught, 78,666; number of volumes in library, 703; average number of pupils who have attended schools, 20,520; aggregate amount paid teachers, viz., from teachers' fund, $25,913 72; voluntary subscriptions, $28,739 55; number of district school-houses, 74 brick, 14 stone, 245 frame, and 471 log—804; cost of district school-houses, $99,708 70; amounts raised in the districts during the year by tax, $23,246 81, of which $18,821 69 was for the erection of school-houses, and the balance for contingent expenses.

The interest of the school fund apportioned to all the counties of the state was $20,600 12.

The total sales of school lands reported by the School Fund Commissioners up to December, 1852, amounted to 286,111 acres, realizing $455,966 36.

It is proper to state, in this connection, that in addition to the grants of every 16th section and special grants for university purposes, there was an additional grant by Congress to this state, for common school purposes, of 500,000 acres, and that the agents, appointed on the part of the state to select the lands, had accomplished their mission, and reported to the "Superintendent of Public Instruction."

CHURCHES AND CHURCH PROPERTY, &c., &c.—The number of churches of the various denominations is 193, having accommodation for 43,083 persons, and with a total value of church property to the amount of $177,425. They are divided as follows:—Methodists 71, with accommodation for 14,529 persons, and with a church property of $43,475; Presbyterian 38, with accommodation for 7,855 persons, and with a church property of $28,350; Baptist 20, with accommodation for 3,957 persons, and with a church property of $19,550; Roman Catholic 18, with accommodation for 4,490 persons, and with a church property of $28,250; Congregationalists 14, with accommodation for 4,725 persons, and with a church property of $21,550; Christian 10, with accommodation for 2,785 persons, and a church property of 6,300; Episcopalian 5, with accommodation for 730 persons, and a church property of $5,000; Friends 5, with accommodation for 1,550 persons, and a church property of $6,300; Lutheran 4, with accommodation for 1,000 persons, and a church property of $6,950; Union 4, with accommodation for 562 persons, and a church property of $7,100; Moravians, 2, with accommodation for 500 persons, and with a church property of $2,200; German Reformed 1, with accommodation for 200 persons, and a church property of $800; Universalists 1, with accommodation for 200 persons, and a church property of $1,600.

From the returns of the United States census of 1850, we find that the number of acres in farms, of improved land in this

State, is 824,682, and the number of unimproved 1,911,382; the cash value of farms is $16,657,567.

The value of farming implements and machinery is $1,172,869. The number of horses, 38,536; asses and mules, 754; milch cows, 45,704; working oxen, 21,892; other cattle, 69,025; sheep, 149,960; swine, 323,247; and the total value of live stock is $3,689,275. The annual value of animals slaughtered, taking the year ending June, 1850, is $821,164.

The number of bushels of wheat is 1,530,581; of rye, 19,916; of Indian corn, 8,656,799; of oats, 1,524,345; of tobacco, 6,041 lbs.; of wool, 373,898lbs; of peas and beans, 4,775 bushels; of Irish potatoes, 276,120 bushels; of sweet potatoes, 6,243 bushels; of barley, 25,093 bushels; of buckwheat, 52,516 bushels; the value of orchard products, $8,434. Number of gallons of wine, 420; value of products of market gardens, $8,848; number of pounds of butter, 2,171,188; of cheese, 209,840; tons of hay, 89,055; bushels of cloverseed, 342½; other grass seeds, bushels of, 2,090; hops, lbs., 8,242; flax, lbs., 62,660; bushels of flaxseed, 1,959½; pounds of silk cocoons 246; pounds of maple sugar, 78,407; gallons of molasses, 3,162; beeswax and honey, 321,711 lbs.; value of home-made manufactures, $221,292.

With the view of presenting at a glance the increase in the value of property, we have referred to the assessment rolls of this state, and we find that the total value of all kinds of property in the year 1852, was $38,427,376; and that of the year 1849, was $18,496,151; showing an increase in the value of property for three years, of about twenty millions of dollars, or an increase of over 107 per cent.!!!

DEAF, DUMB, BLIND, INSANE AND IDIOTIC.—The number by the United States census of 1850, of deaf and dumb, is 128 males, and 117 females, making a total of 245, but this does not include 17 deaf whites, which are mentioned in the returns; of these there were 23 born in the state; 196 born out of the state, but in the United States, and 26 foreign born.

By the "Code of Iowa" it is enacted that, upon satisfactory evidence being given to the county court of any county in the state that there is a deaf, dumb, or blind person, between the ages of ten and thirty years, residing in said county, it shall be the duty of the court to certify that fact, together with the name and age of the unfortunate, and the names of his parents or guardian, to the Superintendent of Public Instruction, who, upon said certificate, is authorized to certify the matter to the Auditor of State, who shall draw his warrant upon the Treasurer of the State for one hundred dollars each year, in favor of the parent or guardian of said person, to be applied to the education of the unfortunate person. Under this proviso the superintendent had notified the legislature, at its session in December, 1852, of having authorized warrants to the amount of $3,400 during the past year.

BIRTHS, MARRIAGES, DEATHS, DWELLINGS AND FAMILIES.—The number born during the year ending June 1st, 1850, 6,099, which of course only includes those who were surviving on this day, and therefore are but approximate; the number of marriages, 1,824; the number died during the year, 2,044; (these statistics are very questionable;) the number of dwellings, 32,962; and the number of families, 33,517.

FINANCES, &c.—By the report of the Treasurer of the State to the legislature at the December session, 1852, it appears there had been received into the treasury from the 2d day of December, 1850, to the 31st day of October, 1852, the sum of $139,681 69, and that the disbursements of the same period had amounted to $131,631.

The Auditor of the State, at the same session, represented that the funded debt of the state amounted to $81,795, of which amount $26,795 75 are payable at the option of the state; and $55,000 on July 1st, 1857. The estimated expenditures for the two years to come, amount to $103,918 90, and the estimated resources for the same period, to $149,119 47.

Art. VIII.—INSURANCE TAX UPON THE GULF COMMERCE OF THE SOUTHWEST.

IN the last report of the Secretary of the Treasury to Congress we find a statement, made from official records, of the losses sustained by wrecks on the capes of Florida, during the past eight years. The statement is as follows:

WRECKS ON FLORIDA REEFS FROM 1844 TO DECEMBER 15, 1852.

			SALVAGE.		EXPENSES.			
Year.	Number of vessels.	Value of vessels and cargoes.	Per ct.	Amount.	Per ct.	Amount	Salvage and expenses.	Loss per ct.
1845	29	$725,000	12.7	$92,694	10.5	$76,370	$169,064	23.3
1846	26	731,000	9.4	69,600	4.9	36,100	105.700	14.3
1847	37	1,624,000	6.7	109,000	6.4	104,500	213.500	13.1
1848	41	1,282,000	11.1	125,800	9.2	74,260	200,060	21.3
1849	46	1,305,000	11.2	127,810	8.5	91.350	219,160	18.7
1850	30	922,000	13.2	122.831	8.3	77,169	200,000	21.5
1851	35	941.500	12.1	75,852	8.4	89,148	165,000	20.5
1852	22	663,800	8.2	80,112	8.2	81,988	163,100	16.4
Total	265	$8,194,300	10	$803,699	8	$630,855	$1,434,584	18.6
Loss per annum							179,823	

The *foreign* vessels are not included in the above, except in the three first years, when there were 17 British, 84 American, and six of other nations. Foreign vessels included, since 1847, the number of wrecks is altogether about 290 vessels. The *expenses* are distinct from salvage, being charges against vessels, &c., in port, as harbor fees, wharfage, storage, auction commissions, exchange, commissions for advances, support of crews, repairs, refitting, &c.

This statement affords very interesting and important information to all the citizens of the Southwest, and particularly to the planting and commercial interest. The actual loss is far less than is generally imagined, and forms a very trifling per cent. indeed of the total value of the immense commerce which passes the capes of Florida, and of the aggregate shipping engaged in this trade. Allowing that the twenty-five foreign vessels not included in the statement should average with the others, we should have a total loss for the eight years of $1,566,230, equal to $195,779 per annum. Now if we knew the total value of the domestic produce and return merchandise, and of the shipping employed in this trade which have passed the capes during the past eight years, we could form an accurate estimate of the per cent. of loss, and of the rate of insurance which would be ample to cover it.

We know, however, that in 1852, about 2,000,000 bales of cotton were shipped from the Gulf ports. Now the other domestic produce sent coastwise and outwards, and the return merchandise to the same ports, together with the total value of all the vessels which passed the capes during the year, would, we may safely assume, equal the value of the cotton, making an aggregate in round numbers of say $200,000,000. Yet take the entire average loss for the eight years, which is much above that of 1851 or 1852, viz., $195,779, and it amounts to only $\frac{978}{10,000}$ per cent. of this value, *or less than one-tenth of one per cent.* At one-half of one per cent., which may be assumed as the ordinary *extra* insurance, compared with Atlantic ports, which is demanded to cover the risk of these Florida reefs, we have the sum of $1,000,000. From this deduct the actual loss, $195,779, and we have the snug sum of $805,000 paid yearly to the insurance companies over and above their losses—or 450 per cent. over and above the actual risk.

It is not surprising that our marine insurance companies make dividends of from 15 to 30 per cent.

It is very plain that the facts do not sustain or warrant the present rate of insurance. It is an interesting fact shown by the statement, that the value of vessels and cargoes wrecked on the reefs during the past three years is $33\frac{1}{3}$ per cent. less than the average for the preceding five years, and this notwithstanding the greater extent and value of our Gulf commerce.

As the present rates of insurance appear to be an exorbitan tax upon the commerce of our Gulf ports, and operate to that extent to lessen the value of our staples, and retard the growth of our commercial marts, we would suggest that the attention of the legislatures of Louisiana and Alabama should be directed to this subject. It would seem to us an excellent plan that these states themselves should become the insurers, exacting only that small premium which a series of years may have demonstrated to be sufficient to cover the risk, together with expenses, &c.

Our present rates appear to be determined rather by the losses of a former period, before the successful establishment of a well-organized fleet of wrecking vessels at Key West, than by reference to the losses of the past eight years.

I question if the total loss and expenses of but 18$\frac{8}{10}$ per cent. of the value of vessels and cargoes wrecked on the Florida reefs will not compare favorably with the per cent. of losses elsewhere, either upon the Atlantic or European coasts.

One point appears to be demonstrated—that a ship canal across the Isthmus of Florida, which may be practicable as low down as the Everglades, is demanded rather with reference to the insurance charges, and the saving of time which might thereby be effected, than with regard to the actual losses sustained upon the Florida reefs. These losses would not amount to more than the interest upon $2,500,000.

As it is known that in marine navigation the expense of freight is not determined by the length of the voyage, but is proportionably much cheaper for long than short voyages, it is evident that the present heavy insurance is the most formidable drawback upon the commerce of our Gulf ports; and as long as it remains as it is, we may expect that the gigantic efforts of the Atlantic cities to draw our trade from its legitimate channels will be unremitting and eminently successful.

Art. IX.—THE COTTON CROP TRADE OF 1852-3.

No. III.

We are indebted to the "New-York Shipping List" and to the "United States Economist" for the following figures:

COMPARATIVE STATEMENT OF GROWTH.

Crop of—		Crop of—		Crop of—	
1852—3	bales.3,262,882	1842—3	bales.2,378,875	1832—3	bales.1,070,438
1851—2	3,015,029	1841—2	1,683,574	1831—2	987,477
1850—1	2,355,257	1840—1	1,634,945	1830—1	1,038,848
1849-50	2,096,706	1839-40	2,177,835	1829-30	976,845
1848—9	2,728,596	1938—9	1,360,532	1828—9	857,744
1847—8	2,347,634	1837—8	1,801,497	1827—8	720,503
1846—7	1,778,651	1836—7	1,422,930	1826—7	957,281
1845—6	2,100,537	1835—6	1,360,725	1825—6	720,027
1844—5	2,394,503	1834—5	1,254,328	1824—5	569,244
1843—4	2,030,409	1833—4	1,205,394	1823—4	509,158

EXPORT TO FOREIGN PORTS, 1852-'53.

FROM	To Great Britain.	To France.	To North of Europe.	Other foreign ports.	TOTAL.
New-Orleans......bales.	922,086	211,526	95,635	149,038	1,038,285
Mobile	237,292	87,824	8,447	12,367	345,930
Texas	5,617	6,342	4,387	—	16,346
Florida	43,708	5,565	5,124	—	54,397
Georgia	122,492	15,059	3,481	1,264	142,296
South Carolina	191,306	59,502	19,319	27,682	297,809
North Carolina	—	—	—	—	—
Virginia	—	—	—	—	—
Baltimore	175	—	471	—	646
Philadelphia	3,514	—	—	137	3,651
New-York	207,647	40,910	32,720	2,763	284,040
Boston	3,023	—	1,592	385	5,000
Grand total	1,736,860	426,728	171,176	193,636	2,528,400
Total last year	1,668,749	421,375	168,875	184,647	2,443,646
Increase	68,111	5,353	2,301	8,989	84,754

The total crop of the United States in 1852-53 was 3,262,882 bales, to which add a previous stock of 91,176, total 3,354,058 bales of supply. Of this amount, after deducting the foreign export and a stock on hand in the country of 135,643 bales, and 20,861 bales burnt at New-Orleans, there remain 671,009 bales for home consumption, against 603,029 last year and 404,108 the year before, exclusive of the amount consumed by manufacturers south of Virginia. In this and Southern establishments, it is estimated that 20,000 bales are used in North Carolina, 10,000 in South Carolina, 20,000 in Georgia, 5,000 in Alabama, 5,000 in Tennessee, 30,000 on the Ohio—total, 90,000 bales, which, if added to the stock of interior towns, etc., giv a total crop of the United States last year of about 3,360,000.e

During the year there were received at New-York, 640 bales from Louisville, by way of the New-York and Erie Rail-road, and 7,000 at Baltimore, and 2,100 at Philadelphia, overland from the West, nearly if not quite all of which, it is believed, came from Tennessee.

UNITED STATES COTTON CROP.

Total Receipts of Cotton into the various Ports of the United States.

	1853.	1851, '52.	1850, '51.	1849, '50.	1848, '49.	1847, '48.	1846, '47.
New-Orleans	1,580,875	1,373,464	933,369	781,886	1,093,797	1,190,733	705,979
Mobile	545,029	549,449	451,748	350,952	518,706	436,336	723,462
Florida	179,476	188,499	181,204	181,344	200,186	153,776	127,852
Texas	85,796	64,052	45,820	31,263	38,827	39,742	8,317
Georgia	349,490	325,714	322,376	343,635	391,372	254,825	242,789
South Carolina	463,203	476,614	387,075	383,265	458,117	261,752	350,200
North Carolina	23,496	16,242	11,928	11,861	10,041	1,518	6,061
Virginia	25,783	20,995	20,737	11,500	17,550	8,951	13,991
Rail-roads	9,740	—	—	—	—	—	—
Total	3,262,882	3,015,029	2,355,257	2,096,706	2,728,596	2,347,634	1,778,651

Total Foreign Exports of Cotton from the United States.

	1853.	1851, '52.	1850, '51.	1849, '50.	1848, '49.	1847, '48.	1846, '47.
To Great Britain	1,737,860	1,668,749	1,418,265	1,206,771	1,537,901	1,324,265	830,909
" France	426,728	421,375	301,358	269,627	368,259	279,172	241,486
" Nor. of Europe	171,176	168,875	129,492	72,156	155,458	120,348	75,669
" Oth. for. ports	193,636	184,647	139,595	121,601	156,226	134,476	93,138
Total	2,528,400	2,443,646	1,988,710	1,590,155	2,227,844	1,858,261	1,241,222

Stock of Cotton on hand in the United States on the 31st of August.

	1853.	1852.	1851.	1850.	1849.	1848.	1847.
New-Orleans	10,522	2,758	15,390	19,612	15,480	37,401	94,498
Mobile	7,516	2,319	29,797	12,962	5,046	23,554	23,172
Florida	523	451	273	1,148	615	507	2,106
Texas	428	317	596	265	452	747	22
Savannah & Augusta	12,984	6,657	24,011	29,069	25,319	36,603	25,020
Charleston	15,126	11,146	10,953	30,698	23,806	14,064	29,655
North Carolina	—	—	—	—	—	—	—
Virginia	400	420	620	1,000	1000	444	448
New-York	67,675	45,710	25,410	60,720	67.720	41,967	83,259
Other Northern ports	20,469	14,250	3,850	15,456	15,456	16,130	26,650
Total	135,643	91,176	128,900	167,930	154,753	171,468	214,637
U. S. consumption	671,009	603,029	404,109	467,769	518,039	531,772	427,967

Art. X.— NEW-ORLEANS COMMERCE, MORTALITY, ETC.

THE commercial year which closed on the 1st September, gives occasion to the publication of many valuable statistical tables in New-Orleans, some of which we will transfer to our columns, as has been our habit for many years back.

We have also before us many interesting items gleaned from the papers of the city, relating to the late most disastrous, and altogether unexampled epidemic, which, in a few months, nearly decimated the city. From some of these we shall also extract at large in the progress of this paper.

Public health being again restored, and public confidence, in a few weeks will New-Orleans rise with new energies and with giant power, and the enterprise and spirit of her people will repair the terrible breach which has been made in her prosperity. God nerve them in the struggle, and we are assured that it will be a manly and a noble one, in which they will be impelled onward by the recollections of the generous sympathies bestowed upon them during last summer throughout the length and breadth of the land. Every New-Orleans heart beats warm in gratitude, and if absent from her midst in those times of deepest sorrow, must have realized in its fulness the couplet of the poet,

"And thus I love thee better still,
E'en in extremity of ill."

We extract from the *Bulletin:*

'PROSPECTS OF THE CITY.—" With regard to most of these, we have abundant cause to congratulate our readers. With a steadily augmenting population, there has been an increased demand for dwelling-houses, and for the shops, stores, and warehouses required by the large portion of our citizens engaged in the various branches of trade. There has, consequently, been a considerable addition to the number of buildings in the city, and the amount of taxable property, which has increased the resources of the city government, and added to its means for extending and improving the pavements of our principal thoroughfares, repairing and adding to the public wharves, increasing our city police, and carrying out whatever other measures may be necessary for the general interests of the community. The

Directors of the New-Orleans and Jackson Rail-road, and the New-Orleans, Opelousas, and Great Western Rail-road, the two great lines designed to open a direct rail-road communication with the Northwest on the one hand, and Southwestern Louisiana and Texas on the other, have been actively engaged in the prosecution of their important duties, and have imparted additional confidence to the anticipations we expressed last year with regard to the beneficial influence of these means of extending our commercial resources. The organic law of the State Constitutional Convention, to which we referred in our last review, has been ratified by the people at the polls, and, in accordance with its provisions, laws have been enacted by the legislature, designed to extend efficient aid to our system of internal improvements, and both encourage the introduction of foreign capital and promote its circulation, by means which cannot fail to increase our commercial prosperity."

Public Health.—"A thorough and complete sanitary system for any populous city, but more particularly for a Southern city, requires not only an efficient health police, but also an abundant supply of water and subterranean or covered sewerage, by which the entire surface of the town may be effectually drained without exposing any noxious matter to the action of the sun. With the Mississippi, during a large portion of the year, flowing at a level above that of our highest streets, there can surely be no difficulty in attaining the former object; and the apparent difficulties with regard to the latter sensibly diminish, when we reflect that while in other cities, where subterranean sewerage has been successfully adopted, it is necessary to sink the sewerage several feet beneath the pavement, both to bring them below the level of cellars and basements, and protect them from the frost, here, where we have neither cellars nor frosts, it is only necessary that they should be covered from the action of the sun. Probably a plan could be devised for laying them of clay pipes, under the side-walks, with openings to drain the gutters. The latter would then answer their present purpose of carrying off floods from the heavy rains, while at other times they would be drained so nearly dry that the city scavengers could readily remove all accumulations of offensive matter, and we should be saved the spectacle of laborers employed by the city in throwing from the gutters into the carriage-way, quantities of polluted mud and water, to evolve, in the hot street, under the burning rays of the sun, the greatest possible quantity of noxious vapors. We have said that this subject should receive the earnest attention of our mercantile classes. In this, at least, they should not content themselves with passive citizenship. Here, if anywhere, 'Commerce' should be 'King;' for to commerce the city is almost exclusively indebted for its wealth, its population, and its power. The wealth and population of every other large city in the United States are nearly as much created by the manufacturer as by the merchant. The city of New-York, for example, which, at the first glance, appears, above all others, indebted to the foreign and domestic trade for its municipal importance, has an aggregate capital invested in manufactures of upwards of $34,000,000, employs in manufacturing pursuits nearly 84,000 hands, and returns from this capital and labor upwards of $105,000,000. Such, at least, is the report in the U. S. Census of 1850; and when we add their families to the number of these operatives, it will be seen that, without including the large portion of the community who are supported by supplying their wants, the manufacturing population of New-York exceeds the amount set down in the same census for the entire population of this city."

Manufactures.—"This case is but an illustration of a fact, proven by the history of every important town, whether inland or on the seaboard, that, while commerce brings wealth in its train, a numerous population can only be aggregated by manufacturing industry. New-Orleans, therefore, in depending, as it has done hitherto, on the profits of commerce alone, owes little or nothing to that which is generally the chief source of popular increase, and hence her advance in numbers has not been in proportion to her increase in wealth. Manufactures, however, not only add largely to the numbers in a community, but both directly and incidentally promote trade, and increase the profits of mercantile classes. If, then, without this important aid, New-Orleans has grown up within a few years to her present palmy state of numbers and wealth, how much more gratifying would have been the result, had she been aided also by the stalwart arm of manufacturing industry! And why has she not thus been aided? The answer is readily found in the greater expenses of living here than in Northern cities, from increased rents and dearer goods, which render it necessary that a laboring man's wages should be higher than at the North. Hence, every successful attempt to cheapen labor, by cheapening food and the other necessaries of life, whether domestic or foreign, promotes the introduction of manufacturing capital, and the increase of manufacturing numbers and wealth. Having reason to believe that this will be effected by even the partial completion of our rail-roads now in progress, we may anticipate, at no distant day, that manufacturing industry will become here, as in the chief Northern and Western towns, an important agent in the increase of our general trade, population, and wealth, provided our city can be made a safe residence for the unacclimated, and not by its sickliness repel operatives from abroad. Hitherto, however, it is almost exclusively Commerce that has built up our city. It is commerce that has extended our wharves for miles along the Levee; commerce that has built up the low lands for nearly a mile from the river; commerce that has converted the swamps and sugar-fields of suburb St. Mary into the most densely-built district of the city; and it is commerce that has paved our streets, erected our court-houses, market-houses, warehouses, churches, hotels, and private dwelling-houses, and in a few years enhanced more than a hundred-fold every foot of land within our corporate limits. Such being the facts, it would be just as well as politic to make commerce as free as possible; to aid it, by decreased port charges, in stretching forth its arms to the remotest regions, and bringing thence the tribute of the industry of many nations to swell our wealth; and, above all, to enable it to offer such inducements to the farmer and the merchant of the Northwest, that they will still find it their interest to make New-Orleans their principal market. Here, again, we are met by the subject of the city hygiene; for we cannot expect the unacclimated citizen of the North to send his produce where he dare not himself venture, or order his supplies where it would be fatal for him to select them in person."

The cotton trade of New-Orleans, 1852-'53, we extract from the "New-Orleans Prices Current."

Table showing the highest point in each month, for Low Middling to Middling Cotton.

	Highest.	Lowest.		Highest.	Lowest.
September	9⅛ a 10	8½ a 9⅛	March	8⅞ a 9¼	8 a 8⅞
October	9¼ a 9⅝	9 a 9½	April	9¼ a 10½	8¾ a 9¾
November	9⅝ a 9¾	8¾ a 9¼	May	9¼ a 10¼	8¾ a 9¾
December	8½ a 9	7½ a 8½	June	9¼ a 10	9 a10
January	8½ a 9¼	8 a 8½	July	9½ a 10⅛	9¼ a10
February	8¼ a 9	7⅞ a 8¾	August	9¾ a 10¾	9¾ a10¾

Table showing the product of Low Middling to Good Middling Cotton, taking the average of each entire year for eight years, with the receipts at New-Orleans, and the total crop of the United States.

	Total crop. Bales.	Receipts at N. O. Bales.	Average Price. Cents.		Total crop. Bales.	Receipts at N. O. Bales.	Average Price. Cents.
1845—6	2,100,537	1,041,393	6⅞	1849-50	2,096,706	797,387	11
1846—7	1,778,651	707,324	10	1850-51	2,355,257	995,036	8
1847—8	2,347,634	1,188,733	6¾	1851-52	3,015,029	1,429,183	8
1848—9	2,728,596	1,100,636	6¼	1852-53...est'd	3,220,000	1,664,864	9

"The total receipts of this port, since 1st September last, from all sources, are 1,664,864 bales. This amount includes 60,875 bales received from Mobile and Florida, and from Texas by sea; and this being deducted, our receipts proper, including 23,995 bales, received direct from Montgomery, &c., are shown to be 1,603,989 bales, being an increase of 209,765 bales over the receipts of last year, which were the largest ever known up to that time. The total exports since 1st September are 1,644,981 bales, of which 922,086 bales were shipped to Great Britain, 21,526 to France, 244,673 to the North and South of Europe, and 266,696 to United States ports. On a comparison of the exports with those of last year, there would appear to be an increase of 150,846 bales to Great Britain, 15,272 to France, 35,514 to the North and South of Europe, and of 10,250 bales to United States ports. The total receipts at all the Atlantic and Gulf ports, up to the latest dates received—as shown by our general cotton table—are 3,211,172 bales; but the actual crop, when made up to the 1st September, by the New-York Shipping and Commercial List, with the difference of stocks at Augusta and Hamburg, receipts overland, &c., will probably not be far from 3,220,000 bales; an excess of 205,000 bales over the crop of last year.

"Thus the largest cotton crop ever produced in the United States has been disposed of, and at a very favorable average of prices, though, besides the material increase in our crop, the lower grades of American cotton have had to contend with unusual imports into Great Britain from India, the quantity received from that source during the first six months of the present year being 266,603 bales, against 44,019 bales in the same period last year. According to the semi-annual circular of Messrs. Hollingshead, Tetly & Co., Liverpool, which we have been accustomed to take as authority, it would appear that the total supply of cotton in Great Britain, for the six months ended on the 30th June, 1853, was 2 182,250 bales, against 1,895,963 bales for same period last year; and that of this quantity 1,496,595 bales were American, against 1,470,662 last year. The quantity taken for consumption in the same time was 1,040,150 bales, against 1,031,763 bales last year, which shows a slight increase, though in the quantity of American taken there has been a falling off, the respective amounts being 825,412 bales in 1852, and 806,295 bales in 1853. The weekly average consumption in Great Britain, for the first six months of the current year, has been 40,005 bales of all kinds, against 39,683 bales for the same period last year; and the stock on hand in the United Kingdom, on the 1st July, 1853, was 986,300 bales, of which 609,100 bales were American. Last year, at the same time, the total stock was 717,200 bales, of which 553,500 bales were American. We have no data for the consumption of the Continent of Europe for the first six months of the current year; but it is probable that it has somewhat exceeded the ratio of 1852, when the consumption of Europe (other than Great Britain) was put down at 1,181,637 bales for the whole year, distributed as follows:—France, 476,660 bales; Russia, 141,959; Hamburg and Bremen, 127,535; Trieste, 126,314; Holland and Belgium, 145,678; Spain, 94,541; other countries, 68,950. The amount taken for consumption in the whole of Europe, (including Great Britain,) in 1852, is stated at 3,077,712 bales. Add the consumption of the United States in the same period—say 650,000 bales—and we have a grand total, in round numbers, of 3,728,000 bales as the apparent consumption of the year 1852. The supply for 1852 may be stated as follows:—

Stock in Great Britain.........bales	494,600	Crop of the United States..bales	3,015,000
" on the continent	93,713	Imports from Brazil	144,197
" in United States ports	128,000	" " West Indies	12,580
		" " Egypt	189,935
		" " East Indies	221,413
	716,313		3,583,125
			716,313
Total		bales	4,299,438

"The ratio of consumption for 1852, as we have already shown, has been somewhat exceeded in Great Britain for the first six months of the current year; and the consumption of the United States for 1853 may be safely put down at 700,000 bales, though not the whole of this quantity will have been taken out of the receipts at the ports.

"We append a table which exhibits the import, delivery, stock, etc., in the whole of Great Britain, for the first six months of the current year, ended on the 30th June last, and a comparison with the same period in 1852.

	1853.		1852.	
Stock 1st January.........bales		657,520		494,600
Import six months		1,524,730		1,401,363
		2,182,250		1,895,963
Export six months	155,800		147,000	
Consumption	1,040,150	1,195,950	1,031,763	1,178,763
Stock 30th June		986.360		717,200
Weekly average taken for consumption		40,005		39,683
Taken on speculation		400,890		372,410

"As to the quality of the last crop, the great bulk of it was of a low average; and we had occasion frequently through the season to remark upon the unusually wide difference in price between the lower and better grades, owing to the abundance of the former and the comparative scarcity of the latter. Clean, bright cottons, with good staple, have generally the advantage in demand, and it probably would be to the interest of the planters if more care were observed in the gathering of the crops.

"With respect to the growing crop, we have to remark that, up to this time, the accounts from the interior are, with some exceptions, favorable for a good yield, should the picking season prove propitious. True, the crop is more backward even than that of last year; and this will render it more liable to serious injury should an early frost ensue; besides retarding the receipts, which are likely to be still further impeded by causes growing out of the prevalence of the epidemic in our midst, as it is altogether probable that the proprietors of steamboats generally will find it difficult, if not impossible, to make their arrangements for entering on the cotton trade as promptly as heretofore. And, besides this, the presence of more or less fever at several of the prominent river towns, which are leading shipping points, is likely to deter planters from sending their crops in while their servants would be exposed to disease that might prove fatal. Thus far, it will be seen, the receipts of new crop show a large deficiency as compared with last year.

"The market prospects for the coming crop we conceive to be of a favorable character, for the consumption is likely to be adequate to the absorption of any probable extent of production. This would seem to be evident from the course of the past two years; for within that period we have seen two successive crops—the last the largest ever produced, and the two combined exceeding any two previous crops by the important amount of nearly a million and a quarter of bales—(the crops of 1851 and 1852, together, amount to about 6,240,000 bales.) We have seen these two large crops more readily disposed of than any previous ones, and at prices which not only present a satisfactory average throughout, but which show a gradual though steady improvement (with some fluctuations, from collateral causes) until the closing rates for the crop of 1852, are nearly 50 per cent. higher than the opening ones for that of 1851. We have already shown that the ratio of consumption in Great Britain, for the first six months of the current year, has exceeded somewhat the ratio of 1852; and should the political questions which now agitate Europe be amicably arranged, and the world remain at peace, such is the general prosperity of the great consuming countries, that a very ample crop is likely to meet a ready market, at satisfactory prices."

The following tables, which have explanatory captions, we have compiled from our records, under the impression that they would probably be found interesting to parties engaged in the cotton trade:—

SEASON.	Receipts at New-Orleans.	Average price per bale.	Total Value.	SEASON.	Receipts at New-Orleans.	Average price per bale.	Total Value.
1842-43	1,089,642	$27 00	$29,420,334	1848-49	1,142,382	$27 00	$30,844,314
1843-44	910,854	32 00	29,147,328	1849-50	837,723	50 00	41,886,150
1844-45	979,238	24 00	23,501,712	1850-51	995,036	49 00	48,756,764
1845-46	1,053,633	32 00	33,716,256	1851-52	1,429,163	34 00	48,592,222
1846-47	740.669	44 00	32,589,436	1852-53	1,664,864	41 00	68,259,424
1847-48	1,213,805	29 00	35,200,345				
Total ten years				bales	12,057,029		$421,914,185

It will be seen by the above table that the cotton alone, sold in this market within the past ten years, has yielded a gross product of $421,914,185.

Date of receipt of first bale.	Receipts of new crop to September 1.		Total receipts at New-Orleans.	Total crop of United States.
1842—July 25	1,734	1842—43	1,075,391	2,378,875
1843—August 17	292	1843— 4	850,342	2,030,409
1844—July 23	5,720	1844— 5	954,285	2,394,503
1845—July 30	6,846	1845— 6	1,041,393	2,100,537
1846—August 7	140	1846— 7	797,324	1,878,651
1847—August 9	1,089	1847— 8	1,188.733	2,347.634
1848—August 5	2,864	1848— 9	1,090,797	2,728,596
1849—August 7	477	1849—50	797,387	2,096,706
1850—August 11	67	1850—51	950,220	2,355 257
1851—July 25	3,155	1851—52	1,429,183	3,015,029
1851—August 2	5,077	1852—53	1,664,864	3,220,000
1852—August 9	74	—	—	—

THE SUGAR TRADE OF NEW-ORLEANS.

We avail ourselves of the valuable annual statement of Mr. P. A. Champomier for a portion of our data under this head. By that publication it appears that the total crop made in Louisiana in 1852, was 321,934 hhds.; thus exceeding the crop of last year by 85,387 hhds., and showing the largest crop ever produced in Louisiana, by an excess of about 74,000 hhds. over any previous one. This was the product of 1481 sugar-houses, of which 943 are now worked by steam power, and 538 by horse power, and the crop is classified as 275,671 hhds. brown sugar, made by the old process, and 46,263 hhds. refined, clarified, &c., including cistern bottoms, which last are computed at 5 per cent. on the product of brown sugar. The weight of the crop is computed at 368,129,000 pounds of all sorts. Thus, the crop of 1852 has been shown to have greatly exceeded the product of any previous year, and we think it proved larger than could reasonably have been expected, considering the damage to the "rattoons" from the remarkably severe frosts of the previous winter: but the season proved unusually propitious for the "plant cane," and besides this it was all harvested without being injured by frost; a circumstance which contributed to render the crop the best in quality, as well as the largest in quantity, that was ever produced in Louisiana. It met with a ready sale, also, at an average of prices but slightly under that of the previous year, and we do not remember ever to have noticed a season that has been characterized by so continued an activity of demand, and so little fluctuation in prices.

The first receipts of the *new crop* were two hogsheads on the 9th October, which were classed Fully Fair, and sold at 6 cents per pound; but the market could not be said to have fairly opened until the latter part of the month, when the range was about 4½ to 5½ cents per pound for Fair to Prime quality. The following table, which exhibits the highest and lowest points in each month for *Fair* Sugar on the Levee, will indicate the general course of the market:

	Highest.	Lowest.		Highest.	Lowest.
September	5¼ a 6	5¼ a 5¾	March	4 a 4¼	3⅝ a 4⅛
October	5 a 5¾	4¾ a 5	April	3¾ a 4¼	3⅝ a 4⅛
November	4¾ a 5	3¾ a 4¼	May	3¾ a 4⅛	3⅝ a 4⅛
December	3¾ a 4¼	3⅝ a 4	June	3⅝ a 3⅞	3⅛ a 3¾
January	4 a 4⅜	3¾ a 4⅛	July	4 a 4⅜	3⅝ a 3⅞
February	4⅛ a 4⅜	4 a 4⅜	August	4 a 4¼	4 a 4¼

There were sales to some extent on plantation, in the middle and latter part of December, but in January the transactions were unusually large, both on Western account and on speculation, the range for crops being from 3¼ to 4½ cents per pound, according to quality. These large operations so reduced the supply in planters' hands that they were induced to ask an advance, and there were some sales of choice crops in February at 4¾ cents per pound.

The estimated stock on hand at the close of last season was 3,000 hhds.; and this amount added to crop of 321,934 hhds., would make a supply of 324,934 hhds. The distribution of this supply, as nearly as can be ascertained, has been as follows:—Shipments to places out of the state, as shown by our tables, and including the exports from Attakapas, 95,000 hhds.; consumption of the city and neighborhood, 20,000 hhds.; taken for refining, in city and state, including cistern bottoms, 15,000 hhds.; stock now on hand in the state, estimated 8,000 hhds., leaving as the quantity taken for the West 206,934 hhds., against 149,547 hhds. last year. The quantity shipped to Atlantic ports is 82,000 hhds., against 42,000 hhds. last year.

In addition to the supply furnished by our own state, there have been imported into this port since 1st September last, from Cuba 2,271 hhds., 27,087 boxes, Brazil 665 cases, 19,964 bags, Manilla 8,112 bags. As was the case last year, the whole of the imports from Brazil and Manilla, and a large portion of those from Cuba, were for a St. Louis refinery. The crop of Texas was about 12,000 hhds., and there were some 5,000 hhds. produced in Florida, about 1,500 hhds. of which came to this market.

With respect to the growing crop, all accounts concur in representing the prospects as being very favorable up to this time; and should the season prove as propitious for maturing, and as favorable for gathering in as the last was, and considering, at the same time, the increased cultivation, it would seem probable that the yield may be such as to afford opportunity for testing the capacity of the physical force now engaged in the production of sugar within the State of Louisiana. The liability to injury by frost, however, renders the crop a very uncertain one, and great fluctuations in the product will be shown by the annexed table, which runs through a period of *twenty-three* years.

	hhds.		hhds.
Crop of 1852	321,934	Crop of 1840	87,000
" 1851	236,547	" 1839	115,000
" 1850	211,203	" 1838	70,000
" 1849	247,923	" 1837	65,000
" 1848	220,000	" 1836	70,000
" 1847	240,000	" 1835	30,000
" 1846	140,000	" 1834	100,000
" 1845	186,650	" 1833	75,000
" 1844	200,000	" 1832	70,000
" 1843	100,000	" 1829	48,000
" 1842	140,000	" 1828	88,000
" 1841	90,000		

Prices and Crop of Molasses.

	Highest.	Lowest.		Highest.	Lowest.
September	18 a 28	16 a 28	March	17 a 24	12 a 21
October	25 a 30	25 a 26	April	17 - a 24½	12 a 20
November	25 a 26	23 a 23½	May	15 a 24	15 a 21
December	22¾ a 23¼	16 a 22	June	14 a 21	11 a 20½
January	20 a 24½	17 a 22	July	13 a 20½	11 a 19
February	21 a 25	20 a 24½	August	13 a 20	13 a 20

The quantity shipped to Atlantic ports, according to our tables, (which include the exports direct from Attakapas) is equal to about 3,700,000 gallons, against 2,700,000 gallons last year. This amount being deducted from the whole crop, as estimated by Mr. Champomier, there would be left for the consumption of the West and South, 22,000,000 gallons, against 15,000,600 gallons last year. Besides the crop of Louisiana, there have been some few hundred barrels received from Florida and Texas, and about 1,200,000 gallons from Cuba, mostly "Concentrated Molasses," imported on account of a St. Louis sugar refinery.

Exports of Cotton and Tobacco, in bales and hhds., from New-Orleans, for the year 1852-3. *To—*

Liverpool	869,835	9,458	Gottenburg	7,392	414
London	50	6,082	Spain and Gibraltar	51,443	10,175
Glasgow and Greenock	39,767	—	Havana, Mexico, &c	20,693	—
Cowes, Falmouth, &c	12,434	610	Genoa, Trieste, &c	76,902	1,966
Cork, Belfast, &c	—	—	China	—	—
Havre	202,957	1,482	St. Petersburg, &c	37,502	2,647
Bordeaux	2,317	169	New-York	73,043	7,231
Marseilles	5,098	1,257	Boston	151,580	1,331
Nantz, Cette and Rouen	1,154	—	Providence, R. I	16,028	—
Amsterdam	1,375	800	Philadelphia	19,362	688
Rotterdam and Ghent	1,982	282	Baltimore	5,126	124
Bremen	14,621	15,053	Portsmouth	—	—
Antwerp, &c	22,232	4,034	Other coastwise ports	357	147
Hamburg	10,531	125	Western States	1,200	—
			Total	1,644,981	64,076

Exports of Sugar and Molasses, from New-Orleans, (up river excepted) 1852-3.

New-York	46,561	169	—	51,420
Philadelphia	11,170	273	—	6,376
Charleston, S. C	3,823	407	—	10,621
Savannah	1,613	149	—	3,777
Providence and Bristol, R. I	2,631	—	—	148
Boston	82	174	213	2,314
Baltimore	10,945	140	—	10,327
Norfolk, Richmond and Petersburg, Va	3,629	172	—	4,760
Alexandria, D. C	1,170	—	—	1,329
Mobile	9,540	175	—	24,158
Apalachicola and Pensacola	1,546	155	—	5,657
Other ports	10,22	2,398	—	993
Total	93,732	4,212	213	121,875

Exports of Provisions, Lead, &c., 1852-3, *at New-Orleans.*

PORTS.	Flour, bbls.	Pork, bbls.	Bacon, hhds.	Lard. kegs.	Beef, bbls.	Lead, pigs.	Whisky, bls.	Corn. sks.
New-York	49,004	6,280	11,660	206,775	12,657	107,371	10,508	225,244
Boston	35,155	76,486	7,381	204,857	14,306	77,518	1,316	119,887
Philadelphia	—	6,280	65	6,846	134	22,196	1,613	17,734
Baltimore	—	8,131	188	11,747	2,000	—	486	—
Oth. coastw. pts.	19,460	26,241	30,328	48,118	586	5,128	57,659	171,877
Great Britain	170,569	4,316	2,224	87,691	42,368	—	—	303,679
Cuba	1,296	2,449	1,229	145,438	3	—	—	14,064
Other for. pts.	69,784	7,983	394	12,524	600	40	60	15,632
Total	520,415	200,226	53,469	723,996	72,652	212,253	71,642	868,117

Prices of Flour at New-Orleans.

	Highest.	Lowest.
September	$3 95 a 4 37½	$3 90 a 4 25
October	4 05 a 4 30	3 95 a 4 25
November	4 65 a 4 80	4 20 a 4 37½
December	5 00 a 5 25	4 30 a 4 60
January	5 00 a 6 00	4 50 a 5 25
February	4 65 a 4 85	3 87½ a 4 37½
March	4 10 a 4 37½	3 80 a 4 25
April	3 90 a 4 20	3 85 a 4 00
May	4 37½ a 4 55	3 90 a 4 12½
June	4 60 a 4 80	4 00 a 4 30
July	6 00 a 8 00	4 65 a 4 90
August	6 75 a 7 87½	5 20 a 6 50

Prices of Corn in sacks at New-Orleans.

	Highest.	Lowest.
Sept......cts. per bu.	58 a 63	52 a 58
October	58 a 62	55 a 58
November	65 a 70	50 a 58
December	55 a 60	43 a 47
January	55 a 60	42 a 54
February	42 a 54	36 a 48
March	35 a 47	34 a 43
April	44 a 50	34 a 45
May	48 a 55	42 a 50
June	48 a 58	45 a 52
July	66 a 75	50 a 60
August	66 a 75	58 a 65

VALUE OF PRODUCE OF THE INTERIOR.

A Table showing the receipts of the principal articles from the interior, during the year ending the 31st of August, 1853, with their estimated average and value.

ARTICLES.		Amount.	Average.	Value.
Apples	bbls	48,328	$3 00	$144,984
Bacon, assorted	hhds. and casks	50,347	70 00	3,524,290
Bacon, assorted	boxes	4,009	30 00	120,270
Bacon hams	hhds. and tierces	42,868	65 00	2,786,420
Bacon, in bulk	pounds	134 300	00 7	9.401
Bagging	pieces	64,144	13 00	833,872
Bale rope	coils	121,553	8 00	972,424
Beans	bbls	9,494	7 00	66,458
Butter	kegs and firkins	44,444	6 00	266,664
Butter	bbls	2,184	28 00	61,152
Beeswax	bbls	194	50 00	9,700
Beef	bbls	48,565	13 00	631,345
Beef	tierces	30,226	18 50	559 181
Beef, dried	pounds	18,900	00 8½	1,606
Buffalo Robes	packs	17	75 00	1,275
Cotton	bales	1,664,864	41 00	68,259,424
Corn Meal	bbls	1,788	3 00	5,364
Corn, in ear	bbls	17,620	00 75	13.215
Corn, shelled	sacks	1,225,031	1 30	1,592,540
Cheese	boxes	39,497	4 00	157,988
Candles	boxes	68,796	6 50	447,174
Cider	bbls	36	3 00	108
Coal, Western	bbls	700,000	00 50	350,000
Dried Apples and Peaches	bbls	2.237	4 00	8,948
Feathers	bags	2,042	40 00	81,680
Flaxseed	tierces	1,279	8 00	10,232
Flour	bbls	808,672	4 50	3,639,024
Furs	hhds., bundles and boxes	730	—	300 000
Hemp	bales	17,648	17 00	300,016
Hides		101.460	2 00	202,920
Hay	bales	175,000	3 00	525,000
Iron, pig	tons	121	40 00	4,840
Lard	bbls. and tierces	118,243	26 00	3,074,318
Lard	kegs	159.672	5 50	878,196
Leather	bundles	6,309	30 00	189,270
Lime, Western	bbls	33,838	1 25	42.297
Lead	pigs	210.287	4 00	841,148
Lead, bar	kegs and boxes	157	25 00	3 925
Lead, White	kegs	725	4 00	2,900
Molasses, (estimated crop)	gallons	25,700,000	00 20	5,140,000
Oats	bbls. and sacks	446,956	1 00	446,956
Onions	bbls	17.718	2 00	35,436
Oil, Linseed	bbls	508	30 00	15.240
Oil, Castor	bbls	4 742	38 00	180,196
Oil, Lard	bbls	14,685	32 00	469.920
Potatoes	bbls	204,327	2 00	408,654
Pork	tierces and bbls	316,592	14 00	4,432,288
Pork	boxes	2,074	30 00	62,220
Pork	hhds	2,547	70 00	178,290
Pork, in bulk	pounds	12,985.810	00 6½	844,077
Porter and Ale	bbls	1,140	10 00	11,400
Packing Yarn	reels	2,811	7 00	19,677
Skins, Deer	packs	425	30 00	12,750
Skins, Bear	packs	29	15 00	435
Shot	kegs	2,233	30 00	66,990
Soap	boxes	6,911	3 00	20,733
Staves	M	6.000	40 00	240,000
Sugar, (estimated crop)	hhds	321,931	48 00	15,452.688
Spanish Moss	bales	3 702	10 00	37,020
Tallow	bbls	1.318	24 00	31,632
Tobacco, Leaf	hhds	63,260	100 00	6.326,000
Tobacco, Strips	hhds	10 050	130 00	1.306,500
Tobacco, Stems	hhds	1,700	20 00	34,000
Tobacco, Chewing	kegs and boxes	10 886	25 00	272,150
Twine	bundles and boxes	4,544	8 00	36 352
Vinegar	bbls	242	6 00	1.452
Whisky	bbls	138,515	8 00	1,108 120
Window Glass	boxes	13,408	3 00	40,224
Wheat	bbls. and sacks	47,238	1 75	82,766
Other various articles, estimated at				6,000,000
Total value				$134,233,735
Total in 1851–'52				$108 051,708
Total in 1850–'51				$106,924,083
Total in 1849–'50				$96,897,873

Prices of Pork at New-Orleans.

	Mess—Highest.	Mess—Lowest.	Prime—Highest.	Prime—Lowest.
September.....Per barrel..	$23 00 a — —	21 00 a 21 50	18 25 a — —	18 00 a — —
October	20 00 a 21 00	16 00 a 16 75	16 00 a 16 50	15 75 a 16 50
November	19 00 a 19 50	16 00 a 16 50	17 00 a 17 50	15 75 a 16 25
December	18 50 a 19 50	17 00 a 17 50	17 00 a 17 50	16 00 a 16 25
January	17 25 a 18 00	16 25 a 17 25	16 00 a 16 50	15 00 a 15 50
February	16 00 a 16 50	15 00 a 15 75	14 50 a — —	13 50 a 14 00
March	15 25 a 15 75	14 00 a 14 75	13 00 a 14 00	12 00 a 12 75
April	15 75 a 16 00	13 75 a 14 00	12 75 a 13 50	11 00 a 12 00
May	15 75 a 16 00	14 00 a 14 75	12 50 a 13 00	12 00 a 12 50
June	15 00 a 15 50	14 00 a 15 25	12 00 a 12 50	11 00 a 12 00
July	14 50 a 15 25	14 50 a 15 25	12 00 a 12 50	11 75 a 12 50
August	14 25 a 15 00	14 25 a 14 75	12 00 a 12 50	12 00 a 12 50

Prices of Beef at New-Orleans.

	Mess—Highest.	Mess—Lowest.	Prime—Highest.	Prime—Lowest.
September....Per barrel...	$15 00 a 16 00	14 50 a 15 00	13 00 a 13 50	13 00 a 13 50
October	14 50 a 16 00	14 00 a 15 00	13 00 a 13 50	12 50 a 13 00
November	14 00 a 14 50	13 00 a 14 00	12 50 a 13 00	11 50 a 12 50
December	12 50 a 14 00	12 00 a 13 50	11 00 a 12 00	9 50 a 10 50
January	13 00 a 14 00	13 00 a 13 50	10 00 a 11 50	9 50 a 10 50
February	13 50 a 14 50	13 00 a 14 00	11 00 a 12 00	11 00 a 12 00
March	13 00 a 14 00	13 00 a 14 00	11 00 a 12 00	11 00 a 12 00
April	13 00 a 14 00	12 50 a 13 50	11 50 a 12 00	11 00 a 11 50
May	13 00 a 14 00	12 50 a 13 50	11 50 a 12 00	11 00 a 11 50
June	14 60 a 14 50	13 00 a 14 00	11 00 a 11 50	11 00 a 11 50
July	15 00 a 15 50	14 00 a 14 50	11 00 a 11 50	11 00 a 11 50
August	15 00 a 15 50	15 00 a 15 50	11 00 a 11 50	11 00 a —

Receipts from the Lake by the New Basin.

		1852—1853.	1851—1852.
Cotton	bales..	32,613	40,650
Sugar	hhds..	323	870
Molasses	bbls...	140	893

Lumber, &c.

Yellow pine, cypress, &c	feet..	40,163,000	30,570,000
Shingles		3,449,000	1,844,000
Laths		2,587,000	5,090,000
Staves		1,870,000	150,000
Sash and doors	pairs..	15,335	13,900
White oak knees		570	1,165
Cypress pickets		2,500	1,300
Cypress clapboards		62,500	165,000
Firewood, oak, ash and pitch pine	cords..	34,412	28,206
Cedar logs		200	240
Buckets	doz..	—	—

Naval Stores.

Tar	bbls..	7,595	1,872
Tar	kegs..	13,274	12,066
Turpentine	bbls..	1,526	2,481
Rosin	bbls..	11,419	11,715

Bricks, Sand, &c.

Brick, (Lake)		17,542,000	19,329,000
Sand	bbls..	197,550	194,850
Shells	bbls..	45,530	27,000

Miscellaneous.

Charcoal	bbls..	138,800	114,300
Hides		3,775	3,024
Moss	bales..	110	30
Florida leaf tobacco	boxes..	15	844
Horned cattle		1,280	123
Cotton gins		146	319
Domestics	bales..	1,155	1,476

Exports of the growth, produce and manufacture of the United States, and foreign merchandise from the district of New-Orleans, for the year ending June 30, 1853:—

AMERICAN PRODUCE.

American Vessels to Foreign Countries.

Third quarter, 1852	$4,175,452	
Fourth " "	16,155,597	
First quarter, 1853	11,862,932	
Second " "	15,434,038—	$47,628,019

Foreign Vessels to Foreign Countries.

Third quarter, 1852	$1,342,181	
Fourth " "	3,973,692	
First quarter, 1853	7,651,775	
Second " "	7,173,059—	$20,140,707

COASTWISE.

Third quarter, 1852		3,488.866
Fourth " "		7,358,099
First quarter, 1853		12,172,578
Second " "	$30,695.466—	7,675,984

FOREIGN PRODUCE.

American Vessels to Foreign Countries.

Third quarter, 1852	$72,594	
Fourth " "	112,355	
First quarter, 1853	149,173	
Second " "	125,182—	$459,304

Foreign Vessels to Foreign Countries.

Third quarter, 1852,	$3,184—	
Fourth " "	22,526	
First quarter, 1853	30,520	
Second " "	8,400—	$64,630
Total		$523,934

The *Bulletin* concludes its comments with the following, which is able and instructive:—

"In summing up the results of the business, and maturely reflecting on the course of our various markets, and the increase as well as the decrease of our commerce, we see more to encourage than dishearten our mercantile friends. Compiling this review in the midst of the most disastrous epidemic that has ever desolated our afflicted city, and aware not only of its deplorable evils to humanity, but also of its serious effects upon our trade, its probable diversion of capital and business to other cities, its check to the recent advance in real estate, and its partial suspension of the tide of European immigration which was rapidly swelling the numbers of our laboring population, and preparing us to add the important element of manufacturing industry to our commercial resources, we still see through all these depressing circumstances much to encourage and cheer us. The course of the epidemic has been so thorough—it has so entirely acclimated our previously unacclimated population who have survived its attack—that from the mere want of material for it to work upon, there is no probability of its recurrence for many years. In the interim, if the owners of real estate and the mercantile community, as well as the various classes whose welfare is allied with theirs, be not blind to their own interest, they will effect a reform which will prevent a repetition of our present misfortunes under any circumstances. The establishment of an effective sanitary police, the adoption of whatever other means may be designated by experience and science as necessary to public health, the provision for an ample supply of water, to thoroughly cleanse the entire city at all seasons, the use of covered or subterranean sewerage, the effectual drainage of the adjacent swamp, the removal of its undergrowth, and the preservation as long as possible of the trees that now protect it with their foliage from the action of the sun, are among the measures pointed out as essential to our future immunity from disease. In all these, or, in fact, in any general system of urban improvement, whether in its relation to the streets, wharves, market-houses, and other public edifices, or to the embellishment of public grounds and avenues, the engineer, the architect and the artist should be governed in their various plans and designs by a just regard for the future. All merely temporary expedients should be discarded, and the city, rising up under their plastic hands, should everywhere present evidences of solidity, permanence, utility and taste. When New-Orleans furnishes such proofs of will and power to effect the great reform we have indicated, she will command confidence where she is now regarded with distrust—her population will increase, her merchants prosper, her real estate advance, and her rail-roads extend to the remotest limits. She will then become, as Nature clearly intended she should be, the true emporium of the South and West, and the very means designed to draw from her the Western business will add to her prosperity. At present it would seem as if Northern capital had determined, by the means of rail-roads, to utterly change the natural course of trade, and for all practical purposes obliterate the Mississippi and its tributaries from the map of the United States; but it must not be overlooked that while the superior speed of rail-roads renders them essential for travel and the carriage of many articles of merchandise, they cannot compete in point of economy with river navigation for the transportation of cheap and bulky products. New-Orleans is the only city that promises a full participation in the benefits of both, and when the rail-roads now in progress are completed, and river transportation is cheapened, as it inevitably will be, either by the improvement of the navigation, or by the employment of boats of greatly increased tonnage, built exclusively for freight, or by the use of barges of improved form, safety, and capacity, she will offer greater facilities to trade than any of her commercial rivals."

Art. XI.—AGRICULTURE.

PROSPECTS OF THE COTTON CROP—RAVAGES OF THE WORM IN ALL OF THE GROWING REGIONS—CALIFORNIA COTTON—COTTON RAISING IN THE EAST INDIES—CULTIVATION OF THE KALI, OR SODA PLANT, AT THE SOUTH.

DURING the past month, we have watched intently the reports of the Southern press in general, regarding the prospects of the present cotton crop, and we are compelled to say that the present indications are decidedly unfavorable. The *Mississippian* of the 9th of September says:

"From all parts of this state and Alabama, there is a general concurrence of accounts of the great calamity to the cotton crop, a few weeks ago so promising, from boll-worms and the unpropitious rainy seasons. A letter shown us from a gentleman who has just travelled over a large portion of Mississippi and Alabama, expresses the confident opinion that the crop cannot exceed 2,500,000 bales."

The boll-worm, according to all accounts, has been unusually destructive. The *Brandon Republican* says:

"We regret to state that within the last ten days this enemy of the cotton crop has made its appearance in many sections of the county, and is doing considerable injury by its ravages. Our exchanges likewise denote its appearance in other sections. It is impossible to calculate the extent of the injury at present; but it has certainly created considerable apprehension on the minds of some of our planters."

The same journal adds:

"In this county, so far as we have been able to ascertain, there will not be half a crop of cotton made. Almost every field has been visited by the boll-worm, and in many instances, even where the weed is large and apparently very thrifty, not more than two or three hundred pounds to the acre will be gathered.

"There are complaints in other directions, but it is doubtful whether any other section has suffered equal to this."

Many other published statements from Mississippi we might cite to the same effect.

From Alabama we have also some alarming accounts. The *Montgomery Journal* of the 9th of September says:

"We regret to learn that the worm has, within the last ten days, been making disastrous ravages on the cotton. Many crops which a month since promised a fair yield, are now destroyed by this pest of the staple. The only reasonable mode to get rid of this evil is, for all planters in the neighborhood to adopt the practice of lighting fires for an hour at dusk in the fly season. The efforts of a few scattered planters through a large district, will effect nothing to eradicate the destroyer, if the mass of their neighbors make no efforts. Any one who has observed the effect of a single light-stand in destroying the fly during the period of its incubation, must be satisfied of its value if generally adopted. From present appearances, we are led to the opinion that the crop of this section will fall below that of last season, which was under a fair average."

The *Claiborne* (Alabama) *Southerner*, of the 10th September, speaks more encouragingly. It says:

"The prospects of the cotton crop have declined considerably in the last month. In some quarters boll-worms, and in others rust, have done much injury. The weed is unusually large, but not particularly well-bolled, and during the recent dry weather there has been much shedding. Nevertheless, the crop hereabouts will probably exceed that of last year, although we think it is generally estimated too high. Some twenty bales of the new crop have come in, and readily commanded ten cents, and in some cases more."

In Georgia, too, the prospects of the cotton crop are unfavorable. The heavy and long-continued rains have injured the crop very much. The *Thomasville* (Ga.) *Watchman* says:

"We hear considerable complaint, and much apprehension expressed among our farmers about the prospects and the apparent injury that will result to their cotton from the continued and heavy rains. In many places cotton is shedding not only its leaves, but the squares and young bolls are turning black and falling off. The rust, too, is doing considerable injury; and in a few instances the boll-worm has made its appearance. Colonel Young informed us the other day that the worm has made its appearance in his cotton, and was making sad havoc, not only in young, but grown bolls. Fears of a short crop in this section are beginning to be pretty generally entertained, and a few days more of wet weather, such as we have had for the past week or two, will fully confirm those fears.

"We learn that in Jefferson County, Florida, the caterpillar has made its appearance in great numbers, and is doing great damage to cotton."

A letter published in the *Charleston Mercury*, from a reliable source, states that in the vicinity of Beaufort, and on St. Helen Island, the genuine caterpillar has appeared among the Sea Island cotton, and is committing great ravages.

From Louisiana we hear constant complaints of the unfavorable prospects of the crops. The *Louisiana Courier* observes:

"Written and printed accounts from all parts of the cotton and tobacco regions announce that the weather has been very unfavorable, and, as a matter of course, the ensuing crops must be short. The tobacco is ruined by too great humidity, and the cotton, besides having the bolls destroyed by the rains, is invaded by millions of legions of army-worms, lucifer-flies, and countless multitudes of other enemies, not named by naturalists, and unknown to them."

It endeavors to console the planters by calling to their recollection that short crops are a certain prelude to a rise of prices. The *St. Francisville Chronicle* speaks of the ravages of the worms among the cotton as follows:

"There is a worm on some of the plantations in our parish, which seems to be very destructive on cotton. It is said to be the grass-worm, and if so, it not only cuts grass, but totally destroys the cotton plant. On one plantation, they have eaten about seventy-five acres of cotton—bolls, forms, stocks and all—leaving the field of their depredation completely barren, and naked of verdure. It matters not by what nature these insects may be known; there is one thing certain, they prove more injurious to the cotton than the genuine army-worm; for they leave no hope to the planter, but destroy every prospect. Accounts from Catahoula parish state that the army-worm has commenced its depredations there. They will soon, therefore, be upon us, to complete the work of destruction which may be left by the worm already infesting the fields in our parish. It would seem that something invariably arises to blight the hopes of a bountiful harvest."

There is no end to the quotations which we might make regarding the unfavorable state of the present cotton crop, from almost every journal in the South and Southwest. In Western Louisiana the crop is better; and the accounts from Texas are decidedly favorable.

The sugar crop of Louisiana, from all present appearances, is likely to be good. The *West Baton Rouge Vis-à-Vis* states that the cane in the parishes of East and West Baton Rouge, Iberville, and Ascension, never was better at this time of year, September 1.

We have observed, of late, in some of the journals, notices of the experiments made upon the California cotton, so called. Mr. B. F. Whitner, Jun., of Madison County, Florida, has furnished the results of his experience in raising it, which show that it is exceedingly productive, much more so than the ordinary cotton, three quarters of an acre of it producing 950 lbs. of seed cotton, while an acre of the Petit Gulf yielded only 784 lbs. It averages a bale to the acre.

We are indebted to Mr. Baker, of Washington, for a note upon the cultivation of the kali plant at the South, from which we learn that during the administration of Mr. Madison, the late John Martin Baker, then United States Consul to the Balearic Islands in the Mediterranean, received by order of the minister of state of the king of Sardinia, through Judge Mormellis, one of his majesty's judges, a request to forward to the President some sample seed of a product botanically called the "kali plant," or soda, which is cultivated to a great extent and advantage in that island. This was done by Mr. Baker, but what became of the seed is unknown. The plant appears to be of superior quality; and believing that from its nature it may be grown to much advantage in the southern parts of the United States—say in Louisiana or Florida—we give a description of its nature, properties, culture, &c.

The plant or seed is sown in the month of February; some sow in December, but that is too early, and is injurious to its growth.

For the cultivation of soda, grounds bordering on bodies of water producing a neutral salt are best adapted, because during its growth the soda imbibes from the water the alkaline part, and is saturated by it. Grounds near the sea-shore are next best fitted for the culture of this plant, because it obtains from the sea-water the alkaline part. The more distant the land is from salt water, the more the soda deteriorates in quality; and when planted and grown on grounds distant from the sea-shore or salt lakes, it loses the quality of a mineral alkali, and becomes a vegetable alkali, because the former contains a far larger quantity of alkaline salts than the latter. From ashes got from other plants most prolific of alkali, it would be difficult to obtain more than one-tenth of their weight of salt, while at least one-half of their weight of fixed salt can be obtained from ashes containing mineral alkali. For the manufacture of glass, the earthy part must be entirely separated from the alkali, in the former kind of ashes, while the latter are conveniently used for soap, *composts*, &c. Salt soil, which will produce no other plants, is best adapted for soda, especially if it be heavy loam or thick mud, and is to be preferred to all others.

The earth must be ploughed, and crossed with a harrow; then laid off in furrows—about six seeds to be laid in each hole—a few inches apart, to be covered over directly, but lightly, with ground; the same now and then to be loosened with a spade, as also after the soda has come up, and while the shoots are growing, in order to aid the growth and to extirpate the plants which come up around and about.

Soda is considered ready for burning when in bud, and before the flowers open is pulled up, scattered about, turned over, until it is equally dried by the heat of the sun.

In grounds where the soda grows, circular pits are made, in which it is put and burned to perfect fusion; for in fire judiciously managed it melts like fusible metal, and afterwards condenses and hardens.

The seed can at all times be obtained, and planted in the different sections of our southern country, where eventually, no doubt, it will become an article of great commercial importance to the general interest of the people of the United States.

Art. XII.—INTERNAL IMPROVEMENTS.

PACIFIC RAILROAD—ESTIMATES OF ITS COST AND REVENUES.

At the request of certain members of the *New-York Atlantic and Pacific Railroad Company*, chartered by the legislature of New-York, *Mr. Septimus Norris*, of Philadelphia, a practical railroad builder, and the constructor of the great St. Petersburg and Moscow Railroad in Russia, has recently laid before them his estimates of the probable cost of building and running the Pacific Railroad, including locomotives, cars, employees, and all the incidental contingencies of the road in full operation; together with his estimates of the clear profits over and above all regular and contingent expenses. These estimates, published in the New-York *Herald*, are looked up to as worthy of some notice, coming, as they do, from a gentleman of the largest experience in such matters. We will endeavor to give a brief outline of them, as reported in the *Herald*. According to these estimates of Mr. Norris, (fixing the length of the road at two thousand miles, which is the greatest length of any calculation yet made from the Mississippi River,) it will cost $816 15 to run a train through, carrying two hundred passengers, at twenty miles an hour, equivalent to the cost of the fifth part of a cent per mile per passenger. Assuming, on the other hand, an average of four hundred passengers per day, at sixty dollars each, for the through ticket, a clear profit over the expenses of the year (including the interest upon one hundred millions for the construction of the road) is made out of upwards of two millions of dollars. The revenues from freights, mails, gold, army and navy transportation, including men, horses, provisions, and munitions of war, would perhaps more than double the passenger receipts, including the way-traffic to and from the intermediate settlements, which would instantly spring up along the whole route, gladdening the waste places, and making the desert literally to blossom like the rose.

In regard to the estimate of 400 passengers per day, Mr. Norris bases it upon the fact, that the arrivals at San Francisco, from the actual records, amount now to an average of nearly one thousand per day; and these do not include the arrivals pouring in by land over the tedious route, on mules and horses, of the South Pass and Humboldt River. The San Francisco arrivals are mostly by the Panama and Nicaragua steamship lines, the cost by either line ranging from two hundred to a thousand or fifteen hundred dollars, and consuming from twenty-five to thirty days, and sometimes more, in running the gauntlet of the deadly fevers of Central America. Now, cut down the time to San Francisco or San Diego to six days, the cost to sixty or eighty dollars, by a route over perhaps the very healthiest region on the face of the earth, and what is there to prevent the thousand per day now landing on the Pacific coast being swelled to two or even three thousand from April to November?

These facts warrant the conclusion, that at least 400 passengers would travel on a great Pacific railroad daily. The following is Mr. Norris' estimate of cost for running a passenger train from St. Louis to San Francisco—say 200 passengers—distance 2,000 miles—the train consisting of—

Four first class passenger cars	$8,000
One baggage car	1,500
One mail car	1,500
One twenty-two ton engine and tender	8,500

The train to run at the average rate of twenty miles per hour, including stoppages; performing the whole distance of 2,000 miles in 100 hours. Thirteen locomotives will be required for this duty, each locomotive running 153 84-100 miles, which will be considered a day's duty, with new sets of hands for each locomotive—the cars to be run through:

Wages of 13 engineers, 153 84-100 miles	$3 00	$39 90
" firemen	1 50	19 50
" conductors	2 00	26 00
" baggage masters	1 25	16 25
" brakemen	1 00	13 00
Wood for fuel and firing up, 63 7-10 cords	2 00	127 40
Water used, 60,000 gallons, 10 cents per M		6 00
Oil for engine and tender, 19 6-10 gallons	1 25	24 50
Oil and grease for cars		7 10
Repairs and renewal of engine and tender, 9 cents per mile		180 00
Repairs and refitting cars, 6 cents per mile		180 00
Hands at the depot and extra engines		75 60
Interest on first cost of 13 engines and tenders, and 6 cars, allowing six days for each trip		145 80
Total		$860 00

Now, $860 15 is the full cost of running a passenger train of two hundred passengers 2,000 miles, which includes every expense of motive power, with interest on cost of engines and cars. The sum of nine cents is nearly two cents per mile more than the average cost per mile for repairs of locomotives on the roads of the United States. The wages are high, and the wood $2 per cord.

Cost per passenger of 2,000 miles is $4 30, or a small fraction over two mills per mile for each passenger.

The following is Mr. Norris' estimate of the probable revenue of the road:

The revenue from the road would be as follows, allowing only four hundred passengers per day. This would give in a year 146,000 passengers, at sixty dollars, $8,760,000. Allow $50,000 per mile, of road equipped and ready for use—2,000 miles, at $50,000 per mile, $100,000,000:

Interest on cost of road, &c., at six per cent		$6,000,000 00
Cost of running 730 trains per year		627,909 50
Total		6,627,909 50
Add superintendence, office expenses		30,000 00
Total		6,657,909 50
Revenue for 400 passengers daily for one year		8,760,000 00
Deduct interest on $100,000,000	$6,000,000 00	
Deduct cost of trains and superintendence	657,909 50	
		6,657,909 50
Revenue over and above 6 per cent		2,107,909 50

From this estimate, the road would pay 8 1-10 per cent. on a capital of $100,000,000, for passengers alone. In all cases large allowances have been made, and in no instance can the cost exceed the estimate. The allowance of only four hundred passengers daily between the two points—St. Louis and San Francisco—is a low estimate of travel. The revenue from freights, mails, and gold, would swell the receipts to a much larger amount.

Art. XIII.—MISCELLANEOUS NOTES.

Our friend M. W. Phillips, of Mississippi, expresses himself strongly in a letter upon the opinions ventured some months ago by Dr. Chickering, of Massachusetts, in an article which we published, that the South might not always find it easy to keep her slaves in subjection. He says, "Negroes on a place for as long as ten years, become perfectly under the control of the children of the master. They will peril life and limb in their service," etc. This we believe to be confirmed by all experience, and we so stated it at the time in a note to Dr. Chickering's paper. Unlike the crack-brained abolitionists, the South is always willing, as a matter of *curiosity*, at least, to hear what is alleged on the opposite side, especially when it is couched in moderate terms and with ability. On this account we have once or twice admitted a paper upon slavery, although not agreeing in every respect with our own views—views which have been expressed almost monthly by ourselves and others through fourteen volumes of the Review, and which leave nothing for abolitionism and free-soilism to rest a foot upon. We are almost ashamed to adduce another argument, so triumphant has been the demonstration. As a Mississippi editor humorously declared the other day of a certain somewhat dubious personage, whom not even editors hold in respect, "he has about as much liking for holy water as the Review for any of the crazy dogmas of the negro-school." We have ever counselled the South upon such a question—that *argument* evinces *cowardice*. When the rights of men are to be invaded, and their whole social organism dissolved, the course of manhood against the invader ceases to be words.

"——which thou wilt,
We try this battle hilt to hilt."

But we are taught to believe now that that hour will never come. We hope it—we even believe it.

If there could be one evidence stronger than all others of the hopelessness of our conversion over from the doctrines of a lifetime, it will be found in the fact of our having actually published the "negro disease" articles of Dr. Cartwright, and actually, too, approved them in the face of all the medical and the scientific men of the country. Think of that. Is it not like the case of the infidel in Don Juan, who, whilst the storm was breaking over his bark, not only admitted every article of the decalogue and the creed, but in his sudden fervor *regretted that there was nothing more to be believed?* Therefore, call theft, absconding, rascality in general, by any other names, and particularly by Greek names, and pill, plaster, and purgative, substitute pillory and penitentiary. Shall we believe anything else, than that Dr. Phillips is to be considered *sound* upon the slavery question?

Dr. Axson, of New-Orleans, has published in his excellent medical journal some valuable statistics of New-Orleans mortality for the last year, prefacing them with sound and philosophic views upon sanitary matters, epidemics, etc. The *Delta* says: "Dr. Axson is known in this community for the high tone of his professional character, for his devotion to truth, etc. He advances to his subject with the spirit of a philosopher." "With a well-stored mind," says the *Bulletin*, "assiduous application, and untiring industry, with zeal and love for his profession, united to a happy faculty of giving his opinions, Dr. Axson has attained a deservedly high rank in his profession."

We have seen it stated that with Dr. Barton, another gentleman of high medical and scientific attainments, Dr. Axson will perhaps form a commission to visit the whole of the yellow fever district of the South-west, and make investigations in regard to the disease, a task for which no two men in the country are better qualified.

From September 1st, 1852, *to August* 31st, *inclusive*, 1853.

MONTHS. 1852.	Under ten years.	Colored.	Zymotic.	Nervous system.	Respiratory system.	Digestive system.	Circulatory system.	Generat. sys.	Urinat. sys.	Locom. sys.	Integ. sys.	Old Age.	Non-Viable.	External causes.	Non specifi'd	Sporadic.
September	246	85	361	103	59	54	8	7	1	4	2	2	1	29	58	36
October	279	106	483	132	82	64	6	8	6	3	0	13	4	33	71	52
November	271	105	502	100	87	45	9	3	3	1	3	8	2	20	59	48
December	268	119	294	131	147	42	13	6	2	1	1	5	0	14	58	39
January, 1853	214	105	167	80	114	40	9	4	1	2	0	4	5	22	32	47
February	173	124	121	80	136	24	9	6	3	3	2	10	0	14	51	29
March	161	99	80	76	285	40	7	4	1	3	0	1	0	15	39	17
April	278	151	154	112	157	58	16	9	0	4	3	3	3	24	52	36
May	349	117	191	86	102	74	22	5	0	4	0	7	0	22	43	36
June	385	134	288	131	94	74	5	10	0	1	2	5	0	31	98	47
July	277	113	1585	117	50	74	3	3	1	0	0	4	2	29	129	35
August	537	123	5013	209	83	81	5	6	1	2	1	11	1	27	235	32
Totals	3438	1381	9139	1357	1196	670	112	71	19	28	14	73	18	290	925	454

We have received a letter from a gentleman of character in Alabama, in regard to our South-western Railroad system, and without expressing any opinion upon the subject, as he desires a reference to it, we make an extract or two:—

"*Fairfield, Pickens Co., Alabama,*
September 17th, 1853.

"SIR—It is reported that Mr. Robb, the enterprising President of the New-Orleans and Tennessee road, has failed to negotiate the $6,000,000 of bonds, necessary to the completion of the road. If such is the case, would it not be better for New-Orleans to deflect a little from her intended route, and connect with us at Macon?

"An application will be made to the next Legislature, for an extension of our charter, through 'Jones' Valley,' to 'Gunter's Landing,' on the Tennessee River, to connect with the 'Knoxville' (in West Tennessee) Railroad, and the 'Stanton and Knoxville Railroad,' which will bring us in direct connection with Washington City," &c., &c.

We have to apologize for not having sooner published an article sent up by a gentleman of New-Orleans, upon the subject of sugar cultivation, in reply to the paper by Dr. Cartwright on the production of Cuban and Mexican cane-fields. It will have a place in our next number.

We are indebted to—

D. Appleton & Co. for a copy of vol. 2 of the works of John C. Calhoun, edited by Richard K. Cralle; embracing his speeches, delivered between the years 1811 and 1837, with brief introductory notes. Several other volumes are to follow, and we suppose that no respectable library in the Union will be without the masterly productions of the great, and altogether unequalled statesman.

J. H. Colton, for a new and complete statistical Gazetteer of the U. S., founded on federal and state returns, and the Seventh National Census, by R. H. Fisher, M.D., New-York—a very able and very full work. The editor makes large use of our Industrial Resources, an authority which, of course, we cannot object to.

W. H. Tenney, New-York, for a copy of the August and September Nos. of a new magazine, devoted to the Mining interest. It is one of the most valuable periodicals in this country.

Teubner & Co., London, a copy of the Progress of Russia in the West, North, and South, by David Urquhart. It will be read with great interest in view of the Russo-Turkish difficulties which are disturbing the world.

W. H. Trescot, of Charleston, S. C., a copy, in pamphlet form, of a letter addressed by him to the Hon. A. P. Butler, on the Diplomatic policy of the United States. Like everything from his pen, it is able and luminous, and altogether in accordance with the liberal views of the present government. Mr. Trescot would make our Diplomacy respected, by making adequate provision for the support of the minister, instead of beggaring him by the honor of the appointment. Having been Secretary of the Legation in England, he has personal knowledge of the matters of his letter. Our readers will remember Mr. Trescot's admirable work upon the Diplomatic policy of the Revolution, which was noticed in the Review, and which we trust he will follow up with others, upon the wars of 1815, and with Mexico.

Pudney & Russell, 79 John-street, New-York.—The Prospectus of a work soon to be published by them, entitled 'Historical Collections of Georgia,' by the Rev. George White, 700 pp., with fine steel and wood engravings, representing the principal scenery and incidents of the State, with Biographical Sketches of the most distinguished Men, from the first settlement of the Colony.

We are indebted to Little, Brown & Co., Boston, for volumes 1 and 2, duodecimo, of their series of the British Poets. These volumes are neatly bound, are printed on good paper, and in handsome, readable type. We shall notice the volumes as they appear, and express, in advance, our satisfaction that an American house has been found with sufficient enterprise to get up an edition of a work which must run through eighty or a hundred volumes, and which no gentleman would willingly be without in his library.

Vol. 1, Poetical Works of Oliver Goldsmith, edited, with a Life, by Rev. John Mitford.

Vol. 2, Poetical Works of John Gray, edited, with a Life, by Rev. John Mitford.

Considering the promises which are made by agents in the East Indies to their employers at home, one cannot but be surprised that old England has up to this time been so unsuccessful in destroying by her INDIA COTTONS our monopoly of the cotton world. After all, we are satisfied in this matter, that in the future as in the past, great cry and *little wool* is to be the result of the India movement.

The latest English papers speak of 1500 bales India cotton having been received, being the largest consignments yet forwarded under the experiments with New-Orleans seed. Mr. Flemming, of Manchester, discussed the question of transportation and labor. He asks, "Will the cost of carriage to the port of shipment be any impediment to the profitable export of cotton?"

"The cost of carriage in this district is very moderate. A bandy will carry 1,000lbs of cotton 20 miles for a rupee. (This is at the rate of about 2½d. per ton per mile.)

Then comes another question; what are the rates of wages for labor in this district? Because labor is a very great ingredient in the production of cheap cotton:—

The rates of wages at Trichindore are as follow:—

	Anna.	Pice.		About.
A coolie man, from 18 to 50 years of age . .	1	2	..	1¾. pr day.
A great boy, from 12 to 17 years of age . .	0	8	..	1d. do
A little boy of 12 years of age . . .	0	6	..	¾d. do
The coolies and great boys, at noon, have jaggery (a coarse sugar, made from the Palmyra), and drink water—each person . . .	0	2		
The little boys have the same, each .	0	1		
An old man's wages are . . .	0	6 or 8		
An old woman's wages are . .	0	6 or 8		
And they also have jaggery . . .	0	2		

The above are the rates of wages from August to December; but from January to July the wages of a coolie are advanced to one anna 5 or 6 pice (or about 2¾d.) per day, as in those months the people go into distant parts to reap the rice, and are also engaged in drawing toddy from the palmyra trees.

You see that the wages of labor are not very important there as an impediment. Now comes another point; for it has been said that the natives will not pay attention to any cultivation to which they have not been accustomed; and I believe it is perfectly true that the natives of India are very much wedded to their own customs, and that it does require some little exertion, but it may be easily overcome, to induce them to pay attention to other modes of culture to which they have not been accustomed. I believe this applies not only to the natives of India, but to farmers in all parts of the world; but I believe even farmers may be convinced (and the natives of India are no exception), that if they can profitably pursue cultivation to which they have not been accustomed, they will easily do so. Are the natives willing to cultivate New-Orleans cotton, and to adopt a new mode of cultivation, if sure of a sale for the crops?

The price of the Cotton Plant, a weekly, published by Mr. Bayler, at Washington city, has been reduced from $2 to $1 per annum, in advance. The Cotton Plant is one of the cheapest and best journals in the country, and is now enlarged, and the advertisements omitted.

☞ We enclose bills to our subscribers the present month, and whether they receive them or not, we trust that all who are in arrears will see the importance of immediately remitting, either in cash, or in orders upon factors, payable when crops are sold.

Our subscribers are earnestly requested to be prompt, as in the disastrous summer which has just closed throughout the South-west, breaking up every description of business, the monthly receipts of the Review were not more than sufficient to pay office rent, leaving large arrearages to be immediately met. Although five months of the current year are passed, we have not sent out our bills, always due on the issue of the first number. In the troubles of the times, we did not care to be importunate.

There was a detention in the delivery of the September number to many subscribers, which they will excuse, in reflecting upon the disadvantages of keeping up an office in New-Orleans during a fierce epidemic. Should any subscriber, however, have failed to receive that number, or indeed any other number, he will only report to the office, and it will be promptly supplied. We are always anxious to correct any errors.

The *Industrial Resources* may yet be obtained, by order, from the office—3 vols., 1800 pages, handsome library binding, price $10, (postage free;) if cash, paid in advance.

DE BOW'S REVIEW:

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Art. I.—CHINA AND THE INDIES.—OUR "MANIFEST DESTINY" IN THE EAST.

CHINA IN THE PAST AND PRESENT—COMMERCIAL RELATIONS OF THE EAST WITH EUROPE AND AMERICA—DIRECT AND REDUCED ROUTES OF COMMUNICATION WITH THE EAST—HOW THE FUTURE OPENS, ETC., ETC.

SOME one likens wars and the revolutions of nations to distempers of the human body. Without striving to discover a closer affinity in the resemblance than the uncertainty of their recurrence and terminations, the comparison seems just, so far as the application is made in a majority of instances. There is much moral instruction to be gathered from the quaint combination of metaphysical apothegms in which the old author indulges, and the wholesome truths with which his allegory abounds. The wars and revolutions of nations do indeed partake, in their external aspects, of the nature of epidemic and endemic diseases, to which the human frame is liable. And in their decline and fall, in the manner in which the fatality fastens upon the body politic, and wastes the energies of their physical existence, the fate of empires, whether determined by a slow process, or a sudden and terrible visitation, is forcibly illustrated by the homely simile, in which there is more philosophy of sentiment than philological beauty. It might also be said, in carrying out the comparison, that these diseases have a similar origin, proceeding from derangements of the local system, from abuses of the health-promoting functions, or that they are bred in the social and political atmosphere, and increase in virulence according as sanitary measures are neglected to remove them. The treatment of cases is another and important consideration, but it does not come within the scope of our present remarks.

China, though it has suffered from scourges, sudden, fierce, and exterminating, has rather been characterized by an exemption from the manifold ills to which less pretensions and more obscure states have been subjected. Its chronic complaint has been a kind of dropsy; a surfeit of population and conceit; of conservatism and vanity; of prejudice and superstition; and, as a consequence of protracted neglect, the disease is now almost incurable. It has not wasted the empire, but it has incapacitated it; and what is more deplorable, there has been no means of drawing off this superfluity of fulsomeness—no remedy devised for the relief of the system, notwithstanding the attempts that have been repeatedly made. The empire is still held together by its girth, or huge wall; and no European nation has ever sundered it with its sword, nor essayed to drain it of the dogmatical humors which tend neither to its own advantage, nor the benefit of the world.

But, as in all similar examples, a visible internal change has taken place. Its political organism, or one portion of it, has endeavored to throw off the superincumbent weight which it has long sustained. The healthy parts, or such as we are led to believe are healthy, refuse their functions to promote a condition to which reason, and the instincts of self-preservation, are alike averse. In other words, China is in a state of domestic strife. Revolution has superseded the reign of sloth; and progress has wrested from the grasp of tyranny the sceptre of conservatism, and sacrificed it to open rebellion.

The United States cannot be indifferent to this conflict, which exhibits all the features of a well-prepared drama. China, from its geographical situation and physical products, is more important to us than to Europe; and more important to Europe than all Southern Asia besides. What the result of the contest now raging will be, no one can even conjecture; for all surmises must rest on the accounts which are permitted to reach us, and, besides being conflicting, these are far from reliable. The issue will be, to seat the Mantchoo-Tartar dynasty more firmly than ever on the throne, and therefore perpetuate the policy of that race of kings who have held out against all foreign intercourse; or it will restore the native dynasty, the fosterers of religion, and the arts and sciences, and open the ports of the empire to the commerce of the world.

The history of China is involved in great obscurity. According to native authority, the empire was founded as early as 2,700 B. C., their first calendar cycle being made to correspond with that period. By other authorities it is maintained that the founder was Johi, the Noah of Sacred Writ, whose dynasty must have commenced about B. C. 2,240. The Chinese refer to the reign of Yao, which was antecedent to this epoch, (B. C. 2,357.) But without endeavoring to reconcile the discrepancies of date, or to correct the errors of annalists, whose data conflict, it is evident that the nation is of great antiquity; that with the Chinese the arts and sciences flourished long before the existence of the nation became known to the adventurers of the Mediterranean. Their first appearance in history was during the wars of the Scythians, towards the close of the seventh century, B. C. In the sanguinary battle fought by Phraates with the former, the Chinese took part against him, (B. C. 129,) from which time they began to intermeddle in the affairs of Eastern Asia, and to enlarge the boundaries of their empire. But prior to this event, and while pagan darkness yet covered the earth for the most part, the Chinese were quietly cultivating the arts of peace, and had already discovered that auxiliary to commerce, the mariner's compass. Tyre, the capital of Phœnicia, had just been built. Troy, assaulted by the Greeks, was struggling to retain her sceptre. The Jews, who had only began to appreciate their liberties, and to retaliate upon the Ammonites for their servitude, had not yet crowned David their king, nor ratified a commercial league with Hiram of Tyre. The age was that of civil strife, social discord, national apathy, or universal barrenness of refinement and industry. It was the age of heroes and of warriors—of such heathen demi-gods as Agamemnon, Achilles, Ulysses, Menelaus, and Ajax. Nations had not yet thought of colonizing, save by the sword, much less extending their power and dominion by intercourse and commercial interchanges. Hence China, which geographers located on that portion of terra firma that "dipped into the sea," fabulous as might have been the stories told of its wealth and treasures, would have offered few inducements for plunder at so remote a distance from the great actors of the age, while opportunities were afforded for rapine and aggression nearer home. Consequently the nation remained unmolested, pursuing a peaceful career, and acquiring that physical strength, and cultivating those mental accomplishments, for which, in distinctive ages, it has been alike formidable and respected.

Four hundred years later (B. C. 500), Confucius introduced a new religion, and the habits, the manners, and the customs of the people underwent a change. They now became more energetic and ambitious; but they had also been taught discretion. They had not beheld, because they were neither spectators nor participants of, the dramas which had been enacted on the shores of the Mediterranean, and on the plains of Assyria and Asia Minor. But intelligence of the rise and fall of the mighty cities which had ruled the world, had been conveyed to them. They had neither witnessed the blazing of Sardis, nor had heard the wail of the Argives over the graves of their slaughtered. It was enough that the scourge of war and massacre had been thus far spared them; and they prepared to avail themselves of a protection which they deemed might soon be needed. Rome, in turn, threatened deeds of aggression, to which those of Darius, of Xerxes, of Hamilcar, and of Alexander, were as the triumphs of pigmies. Besides, not unknown to the Chinese, the northern tribes of Asia, fierce and terrible in their lusts, began to exhibit a turbulent and dangerous spirit. And therefore, we say, the Chinese, weighing these considerations dispassionately, availed themselves of such physical protection as none but enlightened genius could have conceived, and a people well-disciplined in the arts and the elements of civil government have executed: they projected and built their great wall—a work, both in artistic design and finish, and in magnitude, evincing a taste and architectural skill far superior to, as in itself it is, more stupendous than anything which surrounds the wonder of Luxor, or distinguishes the pyramids of the Nile. But although the Chinese had thus endeavored to guard against the evils which they had reason to dread, by erecting a wall of masonry about them, they were not entirely successful in resisting encroachment. The Huns, their former allies, were the first to annoy them; and, as if to invite foreign invasion, dissensions arose at home. This was during the dynasty of Tsin, (B. C. 214.) Han succeeded to the empire, (B. C. 207,) and confidence in his rule begat general prosperity; and the welfare of the empire remained undisturbed for another century. Lieupang was now on the throne; and while he paid tribute to the Huns, to avoid provoking their hostility, he extended his dominions to Pegu, Siam, Kamtschatka, and Bengal. Himself and his immediate successors might, with the countenance of the Huns, have pushed their conquests to the borders of the Red Sea, and to the shores of the Euxine. The Medo-Persian and the Macedonian empires had passed away. Asia had been ravaged and despoiled from the Caucasus to the Indian Ocean—from the Indus to the Bosphorus. Except the arm of Rome, China would have encountered no serious obstacle to her progress; and even Rome might have been content with a demarcation line dividing Asia Minor from the East, and leaving her in the possession of the crumbling kingdoms west of that.

With the close of the third Punic war, and the commencement of the migration of the German nations, we lose ourselves, as respects China, in historical doubt. We know that in A. D. 57, in the reign of Tong Han, additional conquests were made, and some territories, including portions of Thibet, obtained. We are aware, also, that the scattered Jews, pursued by necessity, or led by adventure, sought an asylum among the Celestials, and colonized in their midst. But the next remarkable event in the Chinese annals, and which followed close upon their opening commercial relations with Europe, if indeed it did not precede, was the treaty or alliance which Antoninus of Rome proposed to them, and touching the true object of which historians disagree. It is evident that by this time the Chinese had progressed far in civilization, in industry, and in social accomplishments. They had, as we have remarked, opened a profitable trade with Europe, which was conducted by land; and on sea, their junks covered the waters of the adjacent and contiguous isles. They had acquired a wide-spread reputation for knowledge, and their manufactures and products found a ready market and eager purchasers everywhere.

But a change awaited China. We shall not attempt to follow its history down to the period when the Leao Tartars took possession of its northern provinces—a lapse of a thousand years, (A. D. 906.) It is even needless to take from this point a retrospective view of the prominent alterations in the map of the political world since the fall of the Western Empire of the Romans. We shall descend to a later epoch, remarkable for the universal influence it had on the subsequent affairs and destinies of nations. On the banks of the Selinga was born that renowned scourge Temugin, better known as Genghis Khan, before whose terrible arms kingdoms tottered and fell, as fragile mounds swept away by the blast of the sirocco. Issuing from the snowy ridges inhabited by the Mongols, whose leader he became, he bore down upon the Chinese Empire without impediment or stay, and left his footprints marked with blood and desolation wherever he went. His career was one continued victory. Invading China, he seized upon seven of the richest provinces of the north, which he added to the newly founded empire of the Tartars. He next overran all Thibet, Corea, and defeated the Sultan of Kharism with 400,000 men. Turning his victorious army towards the Black Sea, he next defeated the Czar of Russia; and now announced his intention of conquering all Asia and Europe. Nation after nation, and tribe after tribe, submitted to him. Jelal-ad-Din, last monarch of Kharism, was driven in exile into India. Persia, whose power had stricken terror into the Grecian and Assyrian heart, yielded, and became to him a suzerainty. Asia, in a word, from the China Sea to the Euxine, including the Celestial Empire, was made tributary to his realm, and suffered from his domination. His death, though it freed the world of a plague, wrought little change for the better in the condition of any of the conquered powers. Such was the prestige of his name, that, despite the want of military skill in his immediate successors, Baatu and Hu-laku, it operated as aterror to enervate and appal the nations against whom the Mongol forces were now directed. The generals, Baatu and Hu-laku, penetrated into Europe, rent the empire of Russia, attacked Poland, destroyed the cities of Lublin and Cracow, besieged and took Bagdad, the capital of the Saracens, and made a banquet of the slaughter of two hundred thousand of its inhabitants. It would have been in vain for China to have attempted resistance to such a colossal power, the more especially as, without allies, it would have been compelled to withstand the brunt solely and alone. Kubla Khan, equally famous in the annals of the East with Genghis Khan, on inheriting the mighty empire founded by the latter, and extended by his predecessors, transferred his sceptre and court to Pekin, which thenceforth became the royal residence of the Mongol Tartarian kings.

We have remarked, that the northern provinces only had been subdued. Kubla completed the work by reducing the southern provinces to submission. He was less a warlike than a politic prince. He adopted the language, the manners, and the customs of the Chinese, and discarded those of his own country. He therefore ingratiated himself in the good-will, if not the affections of his conquered subjects.

A century intervened. As the power of the Græco-Latin empire began to culminate, that of the Mongol Tartars began rapidly to decline. At this period Tamerlane appeared. Though of Turkish origin, his ancestry were of the house of Genghis Khan; and the youthful prince early gave evidence that he inherited many of the military qualifications of his great progenitor. He beheld his native country dismembered and parcelled out to independent governors; China, though never wrested from the Mongol rule, enjoying a distinct sovereignty; and, in every material sense, alienated from all joint interest, consanguinity, and political association in and from each other. Tamerlane buckled on his rude armor, and marshalled an exterminating army in the mountains of Tartary. His triumphs and achievements are matter of history. We allude to them, because they help to answer the question why, apparently, the Chinese have remained inactive for a period of 2,000 years. Tamerlane first freed his country from the Calmucs; and then, inflamed with ferocity and a thirst for blood, he turned his arms against Turkistan, invades Persia, retakes Bagdad, invades Eastern Tartary, (which had previously revolted, and became independent with China,) with an army whose front covered thirteen miles; attacks Hisdostan, and in his march murders 10,000 prisoners, for the sole reason that they were cumbersome to his movements, and incommoded his progress. Quitting the banks of the Ganges, be marched against Bajazet, whom he defeated and subsequently captured, invaded Syria, and even threatened Egypt. Forming an alliance with the Greeks, the expedition of Natolia was undertaken. Ere long he had made tributary the emirs of Turkey, in Asia Minor; the Ottoman and Egyptian sultans, and the Greek emperor of Constantinople. His last act was to project an expedition against China, and to bring the degenerate emperor thereof back to his ancient allegiance and filial fealty. His death cut short his sanguine dreams; and thus passed away Tamerlane, the greatest of the Tartar generals—like a bright yet malignant star torn from the firmament—with the glory of thirteen diadems encircling his brows. Thenceforth decay seized upon the western Tartar dominions. They fell, and on a portion of the ruins arose the power of the Mongols, a second branch of the Mongol race, descendants of Genghis Khan. Baber was the first emperor, who had been governor of Ferghana, a province of the possessions of Tamerlane. Driven by the Usbecs from his capital, he penetrated into Cabul, which he took, and thus advanced to the Indus. After capturing Lahore, he formed a league with Dowlut, Khan of Lodi; and together they successfully operated against the Affghan kingdom, which became subservient to Baber. Twenty-five years later, under Akbar the Munificent, the new empire had attained a glory and eminence never since equalled in the annals of the Mogul history, save during the period between 1690 and 1710, when the annual revenues of the empire amounted to one hundred and seventy millions of dollars, and when Aurung Zebe the Unfilial, sat in state, robed in pearls and jewels.

Meanwile the Ottoman empire had been incorporated with the Turkish power, and extended almost to the gates of Vienna, in Europe. Russia had also become a first rate-power, and exhibited symptoms of an ambitious and acquisitive spirit. Abbas the Great was on the throne of Persia, and had again raised the importance of that kingdom to a high pitch. China was surrounded now by the ocean barrier, the Moguls in India and Western Tartary, by Russia on the north, and the Mongols in Eastern Tartary, not subject to the imperial crown. Flanking these barbaric powers were Persia, at the height of its renown; the empire of the Turks extending up the Danube into Europe; and by the English, now beginning to encroach upon Southern Asia from the Indian Ocean. The epoch to which we have thus brought this historial review, is 1650. Chim-Chi, the Mongol or Eastern Tartar emperor of China, had just died, leaving the crown to Kam-hi, his son, between the period of whose accession and the close of the seventeenth century no events occurred of a nature to claim our special attention in this connection.

It will be seen that the posture of China was one of no enviable character. Peaceful in their habits, enlightened in their views, well-organized, and appreciative of good government;

industrious, persevering, and frugal, the people had prospered until they were subjugated by the Eastern Tartars, and even long after their dominions had passed from them. They had, as we have seen, taken a part in the early history of the Scythians; had, with the aid of the Huns, or by their passive co-operation, extended their rule to the shores of the Caspian; but as generation succeeded generation, and the native element became lost in the predominating element of the Mongol dynasty, in the imperial family, the nation began to exhibit effeminacy, degeneracy, and finally an apathy, coupled with prejudice, vanity, and superstition, which is characteristic of it at this day. No one familiar with Oriental history can doubt, that if the native population had retained their sway, and the kings of China had still sprung from the loins of Fohi, the empire, despite the power of the barbaric tribes with which they were environed for two thousand years, would have attained greater eminence, have exhibited a more liberal character, and in physical strength have more than counterbalanced the powers of Central Asia, Russia on the north, and the English in India. China may well be excused for the slow progress it has made in some respects, but not as regards a policy of utter seclusion, imported into the empire for a protracted contingency, but no longer needful, or even expedient, in the enlarged and familiar relations of the world.

To understand the nature of the domestic conflict agitating the empire, it is only necessary to refer to the nature of the Chinese institutions, and the character of their social and political fabric. An examination of these will suffice also to convince us that, if properly administered, the laws of the empire could not be framed in a better spirit to meet the wants and further the general happiness of the people. The complaint of the revolutionists is, not that the laws are unwise, that offices are disproportioned, that the system of government is oncrous or pernicious, but that the laws and the principles of their government have been abused and perverted. The supreme authority is vested in one executive head, the crown being hereditary in the male line. This power, however, is limited by certain rights which appertain to the magistracy, and is reposed, first, in the mandarins, and by a system of gradation in inferior officers. All appointments are conferred by hereditary rule on the learned. Of this estate there are three ranks, which depend for their existence on the capacity of candidates to answer correctly certain questions which are propounded prior to their installation. The Chinese have no hereditary dignities, except in princes of the blood, descendants of Confucius, and in one or two other families; but the descendants of an ancestor of distinguished merit are often rewarded with honors which are continued through successive generations. The laws are couched in the simplest language, and promulgated with the utmost possible publicity, that none may be ignorant of them. Punishment is inflicted by the bastinado, the pillory, banishment, hard labor, and death. The population is divided into seven principal classes: 1. Mandarins; 2. Military; 3. Learned; 4. Priests; 5. Husbandmen; 6. Artisans; 7. Merchants. Each of these classes has its grades and ranks, which take precedence in their order. "When China," says Balbi, "was first explored by European travellers, it was believed to be a nation that had alone found out the true secret of government, where the virtues were developed by the operation of the laws." If such impressions were made upon persons fresh from the courts of enlightened monarchs, and bred in the atmosphere of polished society, familiar with the laws and institutions of European civilization, and conversant with the distinctive features of social life everywhere, we must believe, trusting to his testimony and our own natural deductions, based on the evidence of our reasoning senses, that, if properly administered, the laws of China could not be amended for the better, nor a more liberal system of government be erected. "We war," exclaims the leaders of the rebellion, "against abuses. We seek not to overthrow established forms, inherited from Fohi, but to extirpate evils with which foreign dynasties have environed them. We wish, in a word, to restore our own reigning house, and to expel the barbaric Mongols from our celestial realm." This comprehends the whole case: it tells the whole story.

And now, having briefly treated of its history, and examined its institutions, let us take a view of China from a commercial point.

It has been said that the Chinese have not sufficiently progressed to estimate at its true value the advantages of commercial reciprocity. This error, not an uncommon one, is easily put to rest. Their mechanical and artistic skill is universally applauded. It is true, they are indolent; but indolence neither indicates ignorance, nor a want of genius. On the contrary, the Chinese are proverbial for their occult and chemical sciences, and their peculiar aptness in handicraft, and knowledge of the metallurgic arts. Their literature is the richest in Asia. Their classical works are numerous, and their written annals and legendic stories are the most complete, consecutive, and well-digested, of any language extant. Poetry, the drama, and romantic prose fictions, are among the productions of the literati; and the ease, fluency, and ornate taste exhibited in these emanations of mind, are deserving of the highest critical praise. Those elements of science and art in which the Chinese are alone deficient, consist of mathematics and painting, and a comparative want of acquaintance with the true principles of astronomy. Their great wall, as a work of architectural design, is a stupendous monument. Let us also keep in view the great garden of Peking, the pleasure-ground of the Mongol monarchs, which is filled with artificial lakes, rivers, pavilions, and palaces, resembling the fabled Elysium, and bringing to the recollection reminiscences of the arcade-gardens of Babylon, in which the Assyrian kings, in their pride and glory, were wont to repose from the noontide suns. Taste is not wanting in this magnificent work of artificial nature. In this, in the design of their temples, in their internal improvements—their towns, their roads, their bridges, their canals, and their aqueducts—in their schools of philosophy and mechanics, do we trace the features of an effeminate and barbaric race, buried in pride and sloth, timorous to a fault, and criminally neglectful of the arts of peace? Let us be assured that such estimates of Chinese character are entirely incorrect.

We now approach the main object of our remarks.* We are

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* The subjoined chronological table will be found useful for matter of reference :—

B. C.,	2700	1st Chinese cycle.
	2207	1st of the 22 Chinese dynasties, (ended 1644, A. D.)
	551	Confucius born.
	211	Chinese wall completed.
	202	Literature and the art of painting encouraged.
	15	Religion of Tao-tse commenced.
A. D.,	60	Religion of the followers of Fo commenced.
	166	Embassy from Rome.
	420	Nanking becomes the capital.
	635	Nestorian Christians allowed to preach their doctrines.
	845	Proscribed and extirpated.
	1260	Peking becomes the capital.
	1400	Great canal Yn Ho completed.
	1517	Europeans first arrive at Canton.
	1586	Macao granted to the Portuguese for a colony.
	1575	Jesuits sent by the Roman Pontiff, as missionaries.
	1644	Conquered by the Tartars.
		TARTAR DYNASTIES.
	1692	Efforts of the Jesuits to establish Christianity.
	1724	Are expelled the country.
	1792	First diplomatic intercourse with England, and Earl Macartney's Mission.
	1812	Edict against Christianity.
	1834	Rights claimed by the East India Company revoked.
	1834	Opium trade interdicted by the Chinese.
	1839	Trade with England suspended.
	1840	Edict against trade with England forever.
	1842	Peace with England, and treaty of peace, in which the ports of Canton, Amoy, Foo-choo-foo, Ningpo and Shanghai, are thrown open to British commerce.
		TARTAR EMPERORS.
	1627	Chang-lei, or (Chwang-lei); 1644, Shun-che; 1669, Kang-he; 1693, Yung-ching; 1736, Keen-lung; 1796, Kea-ding; 1821, Taou-Kwang; 1850, Sze-Hing.

closing with Chinese history down to the opening of the seventeenth century. Avenues of trade, under the native princes, had been opened by land and sea—the latter being limited, but the former were of considerable importance and extent. The commerce with Siberia was conducted through Maimachin, opposite Keatchu; with Turkistan through Yarkand; with Hindostan through Lassa; and with Burmah and Annam through a number of frontier towns. Tea, nankeen, rhubarb, ginger, porcelain, &c., were exchanged for opium from India, furs from Siberia, and for sandal-wood, birds' nests (*biche de mer*), or tripang, ivory, ginseng, and tobacco, from other parts of the world, by overland carriage, through Persia, Arabia, Turkey, Assyria, and by way of the Black Sea. Almost simultaneously the English and the Russians began to regard this traffic with jealousy and an eye to self-interest. Ismaloff, emperor of Russia, undertook to wheedle the Chinese into an exclusive alliance with himself, by which he hoped not only to outwit the English, and monopolize the commercial advantages which were at the command of the former, but to strengthen his political relations in Central Asia, and, perhaps, dispossess the British in India altogether. We have stated that Keatchu had already become a trading post of the Russians with the Chinese, through the Chinese town Maimachin. The Russian government, viewing the importance of this place for a future great central entrepôt, bent every energy to secure the good-will of the Mongolians, and keep open the trade route through Maimachin. Of such consequence, indeed, was this consideration to the Russian court, that, in a treaty concluded with the Chinese government, the czar volunteered to abandon all pretensions to an entry into the celestial ports, and even to rank as a feudatory prince of that empire! England sent out an embassy to counteract the influences of these movements; but Earl Macartney, who was the plenipotentiary chosen, failed in his mission, and was peremptorily ordered to leave the empire. His lordship did not understand eastern diplomacy, and was incapable of combating Russian intrigue. A second embassy was sent out twenty-three years later, but met with no better success. It also failed, because Lord Amherst, the ambassador, refused to make the kou-ton, lest thereby he would compromise the majesty of England. It is no marvel that, in endeavoring to vault over Chinese prejudices by the prestige of a name, the English plenipotentiaries should have met with a rebuff, while meanwhile the Russian emperor was quietly gaining his point, by sacrificing his dignity, and degrading himself so low as to be recorded, in the Chinese list of tributary princes, among those of the second degree.

It is not necessary that we should pursue the history of these nations in their rival projects, or their efforts to implant themselves in China; for the annals of the British in India supply all the requisite information. Suffice it that England only partially accomplished her object by the point of the sword, and made an enemy, much to the delight of Russia, who had not contemplated such a result to the British, whose deeply-rooted hostility and thirst for revenge will never be eradicated from the Chinese breast. Russia, on the other hand, fully succeeded by a policy of peace, and has established itself not only commercially in the Chinese empire, but has won over to its interest a majority of the tribes of Thibet, of Turkistan, Mongolia, and even the northern provinces of China Proper, a promiscuous population, which could, at any moment, be rendered dangerous to the integrity of the celestial realm.

We come now to speak of matters as they are. Russia is even more formidable in the East than the English; while in Central Asia its power is paramount. We are not apt so to regard these facts; but that is owing to our want of information and neglect in examining the subject. Peter the Great is reported to have said, that he never took a step towards the Atlantic but he turned to survey what he was abandoning towards the Frozen Ocean and the Pacific. His grand scheme was to unite the Mediterranean with the rivers flowing into the Pacific, and to have this union effected through his dominions. His successors seem to have been inspired with the same desire. We have seen the Russias expand, and without hardly a blow being struck. England has acquired an immense Indian coast, stretching from the frontiers of Burmah on the west to Aden and the Red Sea; but it has not brought India a mile nearer to the British isles: on the contrary, every advance made into the interior of Asia, by the Arabian Sea or Bay of Bengal, only lengthens the commercial route to Liverpool and to London. Schemes of overland intercourse entertained by her may be accomplished; but it will be through sufferance—by Turkish and Persian cessions—grants by powers that are already tottering, and gravitating toward the Urals and the Volga. And, though she may establish herself in Herat, in Cabul, in Beloochistan, in Sindhy, and in the country of the Siks—spread her sceptre over all Hindostan, and Burmah, Nepaul, and Annam, she meets at all points internally the Russian cordon, which cuts her off from the river arteries which pour into the Caspian and Black seas on the west, and the mighty floods that roll towards the Pacific on the east. Every navigable water-course which England commands in India, empties into the Indian Ocean, carrying from her the products of the river basins, instead of bringing them to her. Not so with regard to Russia. That power, with her right to navigate the great Amour, and her prospective right of navigating the large water-courses of Mantchooria and Dauria, which lie between 40° and 50° of north parallel of latitude, will be enabled to control all the internal commerce that must pass to the Pacific, through the ports of the Sea of Japan, and the Chicah and Okholsk gulfs, having a consecutive coast, looking out upon California, of over a thousand miles. Russia is thus brought in direct communication with the states of North and South America; and, should a canal or railroad ever span this continent, bring her into almost direct contact with Europe. In either case, she will still be nearer to the markets of Europe and America, whether or not a canal or railroad is constructed on this continent; for England must navigate great distances towards the antarctic zones, before the prows of her vessels are turned towards the arctic pole. On the west, the progress of Russia has been even more rapid, and the advantages obtained far more important. Here, again, we find that power in control of the waters which flow into the Atlantic, and which bring Central Asia into direct communication with Northern Europe. When the conquest of Circassia is completed, with Georgia, Russia will have dominion over the territories and rivers which connect with the Black Sea and the Caspian, and extend in an unbroken chain through Central Asia to the very sources of the Indus and Ganges. And then, as if to complete her acquisitions, she may point to the Danube, which is virtually hers already, and say, in the language of Catherine II., "five kingdoms breathe through that ventricle."

Kiatchu, the Russo-Chinese mart, is located on a river of the same name, which communicates with a tributary of the great Yenesei. It is 55 miles south-east of Selengensk, 180 miles south-east from Irkoutsk, 4,174 miles from St. Petersburgh, and 1,030 miles from Pekin. The Imperial Russian-American Company carry to the fair held here, which takes place between the months of January and March, the furs, peltries, sea-horse teeth, etc., collected at their trading establishments on the north-west coast of America, Kamtschatka, and the Aleutian and Kurile islands. The Russian Siberian traders bring furs, dressed sheep and lambskins, woollen manufactures of various kinds required for the cold climate of northern China, Mongolia, and Mantchooria; also, coarse linens, leather, specie, horned cattle, camels, horses, hounds, dogs for hunting the wild boar, provisions, etc., all of which they exchange for raw and manufactured silk, porcelain, rhubarb, sugar-candy, musk, and teas of China. Some idea may be obtained of the extent of the trade conducted at this station, when we inform the reader, that the sales at a single fair, (once a year,) amount in value to 100,000,000 roubles, equal to $20,000,000. The other Siberian trading stations are Zurukaita, Semapalatinsk, Busk, and Omsk, which, together, average an annual sale of $14,000,000—making the barter of Russia through Siberia $34,000,000 a year. But these are barter stations only, for the exchange of Russian and Chinese commodities. It is to the annual fairs of Irbit and Nishney-Novgorod that we are to look for the legitimate details of the Russo-internal traffic. Through these instrumentalities, Russia maintains her political preponderance in Central Asia, and exercises an influence which is almost supreme over the nomadic tribes and ungoverned natives which hover on the borders of China Proper and the British possessions in India. The fair of Irbit is held in January, and is frequented principally by Russians, Siberians, Bokharians, Armenians, and Greeks. The town is the entrepôt for the Siberian furs and Asiatic merchandise passing into Europe. The fair of Nishney-Novgorod, which is the most celebrated in the world, commences in July, and ends in August. Three hundred thousand people have been known to attend these mercantile convocations at one time. Here may be met the Chinese, the Calmuc, the Bashkir, the Mongol, the Mantchoo, the Bokhar, the Indian, the Kirghise, the Persian, the Georgian, the Circassian, the Armenian, the Parsee, the Arab, the Greek, the Jew, the Sclavonian, the German, the Italian, the Englishman, the Dutchman, the Belgian, the Dane, the Swede, the American, the Yankee, and the Australian—inhabitants of every section of the globe, speaking every known language and tongue. As Russia is the fosterer of this great mart, and is regarded as the protector of it by the foreign merchants and traders, it is reasonable to suppose that that vast power loses no opportunity to convert its machinery into a gigantic political vehicle, for the furtherance of its interests in every inhabitable region of Asia. And Russia never neglects to follow up a triumph of peaceful policy by a practical development of her genius and purpose. By the system of railroads now in course of construction in the empire, lines have been extended from St. Petersburgh to Moscow; and miles have been surveyed, which will connect the capital with Nishney-Novgorod and Casan—the former being advantageously situated for commerce and military movements on the Volga; and the other, on the Casanca, of no less importance as an advance military and trading post. From these points, Russia overlooks all the countries of the Caspian and Independent Tartary, as Siberia overlooks China, while, in a commercial sense, she holds dominion of the arteries of communication between the Black Sea and the Pacific, and those ramifying northward to the Gulf of Finland and the Baltic. The Volga is as essential to Russia on the north-east, as the Danube is to her on the south-west. It is 2,500 miles in length, and connects with the Neva, which unites the Caspian and the

Black Sea, and, by means of the canal of Vishnei-Vololshok, commands the trading land routes throughout the countries we have named, in Central Asia. Few persons are aware of the extent of the internal commerce which Russia has thus at her disposal, or of the political advantages in Asia which she possesses. Nor are they readily estimated by such merely cursory glances at their magnitude as we have been constrained, for want of space, to give them.

It remains to speak of the character of the exchanges which are most required in the Central and Eastern Asiatic markets. The commodities which descend from the northern to be consumed in the southern hemisphere, are, according to natural laws governing trade, those which climate and custom require; while those ascending from the southern to the northern hemisphere, are, by the same laws, similarly prescribed, and their supply controlled. But it must not be inferred that the single demand of local consumption regulates the trade of two or more nations; for in sparsely-settled communities, or where the habits of a people are simple and self-denying, the interchanges would be few, and limited not only in bulk but in variety. Local demand and local consumption are the first considerations of mercantile projects; but commerce is presumed to know no circumscribed limits; it aims to diffuse itself over the universe; and catch up with the same avidity the products of Siberia, as those of Europe, teeming with its millions, and affording markets at every turn. Society values the commodities which it consumes; and in exact proportion as difficulties in obtaining, transporting, and protecting them, beset, surround, or attend the supply, will the estimate be made, and inducements for exchanges be held out, whether these exchanges take place in the steppes of Tartary, in the deserts of Africa, or in the heart of Europe. So that, at Kiatchu, we find a barter, not only of the prime necessaries, but the luxuries, of both rude and civilized life—walrus' teeth exhibited in the same mart with teas, muslins with furs, silks with ginseng, hides with sugars, calicoes with rhubarb; and so on to the end of the list. At Nishney-Novgorod we meet with merchants from every clime. They buy, not to sell alone at home, but carry their wares and merchandize to distant bazaars, where they are exchanged and carried still further, and thus find their way into universal consumption. At this emporium no available commodity is omitted; and in every trading-town along the immense line which divides Russia and Siberia from the residue of Asia, extending from the Mediteranean to the Sea of Japan, may be found goods bearing the Russian custom-house stamp, and brought from the Nishney-Novgorod fairs. The natives of Asia, south of this line, instead of settling towards the Indian Ocean, towards the

British East India empire, retreat further and further on Russia, at every extension of territorial boundary of that power. Russia is not only content, but says that it should be so. The czars have never manifested a disposition to cross the Himalayahs, or to contend for those rivers that pour into the Bay of Bengal and the Persian Gulf, which are comparatively valueless in strengthening their dominions or augmenting their internal commerce. They prefer, indeed, that the native tribes shall be driven back into Tartary—that the territorial possessions of the aboriginal inhabitants shall be wrested from them, and the tombs and graves of their ancestry desecrated; that while the British sword, by remorseless cruelties and aggressions, is creating a stern and inflexible enemy, it will be serving to unite a human wall in defence of their extensive Asiatic borders against all other formidable European powers that might attempt, influenced by a more forbearing spirit and conciliatory policy on the part of England, to entrench too near the jealous Cossacks, and thus for ever weaken their Siberian possessions, and jeopardize their future predominance in China. These are the influences that operate with the czars, and explain many of the inconsistencies of action which we observe in their diplomatic dealings. While Nicholas has his eye upon Pekin, and nothing obscures or intercepts the vision, England may, in imitation of the barbaric Tamerlane, erect pyramids on the plains of Sarahunpore of human skulls, and discolor the waters of the Indus with slaughter and carnage—it will matter little to him. It is only as England entrenches upon China, that he will arouse himself to more determined and less enigmatical demonstrations.

The treasures of the eastern hemisphere, from the earliest antiquity, have been objects of great moment to both ancient and modern nations. Perhaps the wealth which it was supposed to contain, particularly on the remote eastern shores of Asia, of gold, and silver, and precious stones, laid, in the ambition of nations to secure it, the foundation of modern commerce, as modern trade has served to extend civilization, and to develop human enterprise and practical industry. The Egyptians, of the more western people, were the first to conduct a foreign traffic, of whom we have any account. But their religious maxims and austere manners ill-fitted them for commercial pursuits. Their prejudices and over-weening pride, operated not only against them, but prevented the demonstration of a commercial character abroad; and in time, they became distinguished only for their religious infatuation, and the zeal and ardor with which they worshipped the graven gods of their own creation. The people next in the order of time, who followed commercial pursuits, were the Sidonians; and from these sprung, not a race, but a community, of merchants, whose enterprise and perseverance mark a brilliant epoch in the annals of navigation and mercantile opulence. We allude to the Syrians, who are so frequently alluded to in maritime history, and not without just cause. The territory of the Phœnicians, barren and unproductive, would not have sufficed to sustain the population which, even in its earliest settlement, had made it their "land of promise." It was necessary, as this population began to increase, to augment the sources of supply; and we thus find the people, who were all merchants or traffickers, gradually extending the commercial domain, until they had crossed the deserts of Arabia, and penetrated into India; and on the West had passed the Straits of Gibraltar, and explored the coasts of Africa and Spain. The Phœnicians, indeed, monopolized the trade of the Mediterranean for centuries. The Jews, after their exodus and settlement in Palestine, had opportunities to divide this traffic;—nay, with Arabia on one side, and Phœnicia on the other, with the Red Sea as their water-channel to the East, and Joppa, on the Mediterranean, as their port of entry and departure, they could have aspired to a commercial altitude never attained in any of the pagan ages; but they were even less calculated for a foreign trade, with principles such as are recognized and maintained to legitimatize it, than had been the Egyptians. They are a calculating, but not a hazardous race. They must possess the tangible evidence of gain, before they will adventure. Now, notwithstanding the kings of Judea possessed ships, we do not read that they ever explored the waters of the Mediterranean, or of the Indian Ocean. On the contrary, David and Solomon formed treaties of commerce and navigation with the kings of Tyre, and through them, or their fleets, obtained those vast riches which were principally appropriated to the Temple and the service of God. The Jews were their own projectors and their own masters in small trade, conducted at home, and with the tribes and nations immediately adjacent; but they never ventured far abroad, nor sought for undiscovered wealth where it was only premised to exist.

After the Egyptians, the Phœnicians, and the Jews in Palestine, we have the Carthaginians. In point of opulence, Carthage was greater than Tyre; in maritime importance, its merchants were possibly equal; in the magnitude of their commercial enterprise, there was but little difference; but the Phœnicians had this advantage: they had succeeded in engrossing the Indian trade, so that the former were content to dispute the trade of the Mediterranean, and to monopolize that which might ultimately offer along the shores of Spain, Gaul and Britain. But, considering them in a united sense, by this time, and in consequence of this union of enterprise, the commerce between the

East, the West, and the North—that is, between India and the Mediterranean, and the latter and the islands of Britain—had become established on an extensive scale, and began to enrich beyond precedent those engaged in it. The nations of Central and Southern Asia cared nothing for commerce. Their chief glory consisted in prosecuting wars, and their ambition in acquiring political power. This spirit, unfortunately, was not wholly foreign to the Greeks. No country on earth was better suited to a flourishing traffic, and for centuries no people ever cared less to take advantage of the natural facilities with which they were supplied. Their geographical situation, their bays and harbors, and their extensive coasts, were disregarded, and the fruits of maritime intercourse, so temptingly proffered, rejected with disdain.

Alexander thought and acted differently. After the edge of Spartan valor had been taken off, and the majesty of Athens had dwindled to a shadow—long after Tyre began to decay, and Carthage had attained maturity—Macedon sent forth a warrior, clad in armor, but with a mind that was readily trained to estimate the true value of commerce. Struck with the favorable situation of the site of Alexandria for a mercantile emporium, he covered Tyre with her ashes, and caused to be erected the magnificent city which bears his name. And he was not mistaken in his views of the importance of this site, which, had a different fate attended Egypt and Syria, would have become one of the grandest and wealthiest ports which the world ever beheld. But when the barbaric hordes of Asia poured forth and inundated Egypt, Alexandria fell to their lust, and suffered the penalty for a magnificence and pomp which barbaric pride could not brook or endure. "I have taken," wrote the victorious Amrou to the Caliph Omar, "the great city of the West." Among its vast wealth and treasures he enumerated the Alexandrian library, which he would have spared, but for the stern and bigoted reply of Omar. "If," said the latter, "these writings of the Greeks agree with the word of God, they are useless, and need not be preserved; if they disagree, they are pernicious, and ought to be destroyed." Commerce never again revived in Egypt after the sacking of this city, and for a time the commerce of India languished. Rome, even in its pristine glory, did not restore it, nor foster an ambition for foreign trade. It may be said with truth, that during her iron sway, commerce rather suffered than was benefited by her.

It was reserved for a later and more enlightened nation to re-open these valuable sluices, which had been partially closed by the violence of war and the revolutions of time. After the heavy cloud which had settled over the civilized world, and wrapped in gloom science, literature, and the arts, consequent upon the irruption of the barbarians of the north and east—after these clouds had been dispelled, and a lull succeeded the loud din of arms, a colony, originally fishermen, settled on the islands of the Adriatic, cast out their nets for a richer spoil, and re-established the trade of the Indies. Indeed, to such eminence did the republic of Venice attain, all owing to the commercial energy of its people, and as the reward of their magnanimous enterprise, that, when the Christian princes of the world resolved to rescue the tomb of Christ from the infidel, "to whom," they asked, "shall we apply for money and means?" for the exchequers of England and France were drained, and Germany proposed to meet her obligation by supplying more than her share of troops. In their emergency, the haughty kings were fain to sue to republican Venice, and to soil their regal robes at the feet of the Venetian merchants; kneeling through their ambassadors on the very floors of San Mark, and begging from the majesty of the people resources which, with all their pomp and aristocratic pretensions, they could not command. Venice derived her greatness from the trade of India. And when the sceptre passed from her—not stricken from her grasp by a decay of the body politic, or a degeneracy in her people—but by the blow which discovery dealt her—the discovery of the route to India by the Cape of Good Hope—it passed from her forever. Genoa, who had almost rivalled her, invoked upon herself a fate which utterly prevented her from triumphing in the downfall of the former. "Destiny," exclaimed a successor of the noble Dandolo, "may change our fortunes, but it shall never change our happiness, or make us forget our liberties." It was the folly of Genoa to place itself under a foreign yoke, and to alienate its freedom and independence; since when, its commerce has dwindled into insignificance, and itself into obscurity.

We have endeavored thus briefly to recal how important the trade of the East had been to the ancient and to the modern world, in both eras and in all ages, and how eagerly it has been sought after by such nations as could appreciate it. Though the discovery of other continents for awhile caused a diversion into other channels of much of the commercial enterprise of a portion of Europe, the East had still its charm, which could not be resisted. The Portuguese, moved by a reckless spirit of adventure, were not stayed by the tides from ploughing the ocean whither inclination might lead; but nevertheless, and notwithstanding the inducements which the western world and the islands of the Atlantic held forth, they could not persuade themselves from pursuing their scheme of aggrandizement in the East. Spain likewise, although Mexico and Peru were still regarded as the fabled Ophir, and embowelled available treasures richer than the uncovered mines of Golconda, could not be tempted to forego all thoughts of the trade of India, which the Spanish merchants had really made the basis of their prosperity and opulence. Then in turn we behold Holland, from her pent up and contracted territories—a domain rescued from the waves —issuing forth on the ocean highway, and also demanding tribute of the Indies. And for a long period, the queens of England, of France, of Germany, and of Italy, did not sleep soundly in their imperial beds, unless the drapery thereof was of Eastern fabrication, and its meshes supplied with stories of Indian or Persian myth. From the time of the Crusades to the close of the seventeenth century, century after century witnessed a successive drain from the East to Northern Europe, and yet the mighty store apparently suffered no diminution. England was the last of the powers of that continent to send out her argosies and merchants to buy in the markets of the Tyrians; but her policy was not the policy of peace, nor the policy of those foreign nations who had for ages preceded her in Asia. Her argument was the sword, and her ultimatum—how shall we describe it, or its results, wherever it has been proclaimed? But let that pass. She entered the arena almost the last to contend for the prize of trade of Eastern Asia. Russia was contemporary, and the United States comes next. Will all be equally benefited?

England has devised every possible method to shorten the route between her and her Indian colonies, yet in vain. She has repeatedly, as did Louis XIII. and Napoleon Bonaparte, caused surveys to be made for overland carriage, that would lessen the time between Liverpool and Calcutta (now that the steamer has partially superseded the sail-vessel, and the railway car the turnpike wagon) to seven days; but such projects appear only on paper. They will never be realized, at least under her auspices. Manifest destiny has marked out Egypt, Syria, and Asia Minor, for the rule of the Cossacks or the infidel. England will never find capitalists willing to invest money in undertakings which promise so little, nor will she be ready to do so herself. England, therefore, must continue to look to this continent as affording a means by which a great part of the difficulty under which she labors may be removed. But what part of the continent shall she penetrate in order to compass that end? Does she desire to unite with us in the construction of a ship-canal across the isthmus dividing the Americas? Does she prefer to wait, and avail herself of a Yankee railroad from New-Orleans or New-York to the Pacific? Will she encourage the Canadas to throw a track across their territories, and connect it with those of Great Britain on the other side? Or, does she contemplate something beyond all this? It has been said that Santa Anna is favorable to a retrocession of

Mexico to Spain, and that a large class of the population are disposed to coincide with him. Spain is hopelessly in debt to England, and Mexico inextricably so. Do the indications given portend more than they appear on the surface? Whence the anxiety of Great Britain to secure Cuba to feeble and tottering Spain? Can Santa Anna mean honestly? Does England chance to conclude that ultimately she will possess a right of highway across Mexico, solely and exclusively, in consideration of the pecuniary obligations of that weak and imbecile power? Or, is the scheme even more stupendous—a sale of extraordinary favors to Great Britain by Spain, should Mexico be retroceded, and the purchase to be made by the cancelling of the debts of both States, and ratified by bribes to the Mexican functionaries—whose eloquent wants clamor loudly—such only as England knows how to offer? We shall not attempt to follow up the train of reasoning which these questions suggest, for it would have little connection with our subject; but the suggestions, from their nature, coupled with the signs in the political horizon, importune us, if we value our Pacific possessions and the trade of the East, to waste no opportunity that may offer towards strengthening the former, and secure largely of the latter.

The extent of our domestic trade with the East may be computed, the exports at $4,000,000, and the imports at $11,000,000, making a total of $15,000,000; and this trifling exchange is had with a people numbering perhaps four hundred millions. The trade which England and Russia conduct with the same people, is regarded by these nations as the most important in magnitude of their entire commerce. Our domestic exports are thus apportioned:

DOMESTIC EXPORTS OF THE UNITED STATES TO THE EAST.

Dutch East Indies	$204,000	China	$2,155,000
British East Indies	512,000	Asia generally	70,000
Manilla and Philippine Isles	125,000		
		Total	$3,066,000

Politicians, intelligent merchants, and even statesmen, are sometimes misled in fixing the figures of our exports to the East, and can hardly realize, in the absence of official returns, that it presents so meagre a feature. We send to China:

Sperm candles	valued at	$7,600	Of iron	valued at	$3,900
Timber	"	6,200	Printed cottons	"	none
" manufactures of	"	7,000	Uncolored	"	1,894,000
Tallow, beef, etc	"	5,000	Wearing apparel	"	3,500
Butter and cheese	"	3,100	Books and maps	"	1,800
Hams and pork	"	3,100	Paints, varnishes, etc.	"	3,000
Flour, wheat, Indian corn	"	12,600	Gold and Silver	"	1,500
Biscuit and ship bread	"	2.800			
Tallow candles and soap	"	1.200	Total		$2,013,400
Manuf. of tobacco, snuff, etc.	"	3,200	Deduct cotton exports		1,894,000
Medical drugs	"	44,500			
Manuf. of copper, of brass	"	9,400			$119,400

It will be seen that after deducting the cotton exports, our supply to China of the prime necessaries and luxuries of life does not reach in value $300,000 per annum. (The actual figures, as given in the official returns, are: Total domestic exports, $2,155,000; subtract the figures for cotton exports, $1,894,000, and the balance is $261,000.) And there only remains, after subtracting the cotton figures, and all other essentials in this aggregate supply, a balance of $119,400, to cover the payment to us for all that is purchased of our unlimited stores from the field, the workshop, and the mines. It is some gratification that we have a market in China for $1,800,000 worth of cotton fabrics per annum; but what is this item when compared with the cotton statistics of England? We subjoin a statement, showing the vast magnitude to which the British trade with China has attained, and how insignificant ours appears in juxtaposition.

COTTON AND WOOLLEN EXPORTS TO CHINA FROM

Cotton Goods.	England.	United States.
Unbleached muslins, pieces	1,792,321	90.523
Bleached " "	645,556	6.398
Twilled goods "	135,591	116,140
Calicoes and chintzes "	75,174	3,130
Cotton handkerchiefs, dozens,	61,480	250
Cotton yarns, lbs.	4,314,947	59,567
Woollen Goods.		
Broad cloths, pieces	334,643	615
Cassimeres "	203,717	968
Camlets, "	381,773	4,958
Blankets, dozens	6,335	none.

It is barely credible that such a disproportion should exist, when we come to consider that we are thousands of miles nearer to China than England is, that the cotton whence she exports is first sent from our own territories in its raw state, to be manufactured by her, and that for genius and enterprise no people are more proverbial than our own. And this colossal trade has been built up and extended within the past half century. It is true that Great Britain had prepared the opening for it; but her progress has been greater in the East within the last fifteen years than at any previous period, while ours has been inversely slow. There was no account kept in the British Registry Office of any traffic with China prior to 1781, for it was of a character too trifling to make an entry of; and if we except India, the same was true with respect to all Asia. But observe how, by the British persevering policy, that small beginning has been extended:

STATEMENT OF THE EXPORTS OF GREAT BRITAIN TO THE EAST, CONSISTING OF TEXTILE FABRICS.

[From Parliamentary Papers for 1852.]

Cotton Goods.		India.	China, &c.
Cotton yarn, &c.	lbs.	22,500,000	8,200,000
Cotton thread,	"	223,000	39,000
Cotton sundries,	yards	50,000	2,000
Calicoes, plain,	"	280,000,000	152,000,000
" printed,	"	50.000,000	21,000,000
Cambrics, &c.	"	1,000,000	30.000
Cords, jeans, &c.,	"	70.000	45.000
Lace, gauze, &c.	"	1,000,000	170,000
Unenumerated, value		$44,000	$2,500
Mixed Goods.			
Linen and cotton,	yards	400,000	700,000
"	value	$21,000	$10,000
Linen thread,	lbs.	9.000	1,300
Woollen and cotton,	value	$5,000,000	$1,600.000
Woollens,	"	$200,000	$600 000
Woollen & worsted	"	$400.000	$2,000,000

Besides the American and other foreign vessels employed in the British Eastern trade, from the ports of England, its own shipping is now reported as follows:—

VESSELS EMPLOYED IN THE EASTERN TRADE FROM BRITISH PORTS.

	ENTERED.		CLEARED.	
	Ships.	Tons.	Ships.	Tons.
East India Company's Territories:				
Singapore and Ceylon.				
Sailing Vessels	546	304,201	491	283,393
Steamers	1	941	4	2,429
French Possessions:				
Pondicherry.				
Sailing Vessels	2	700	1	1,800
Steamers, none.				
Sumatra, Java, and Philippine Islands:				
Sailing Vessels	30	14,031	28	11,063
Steamers, none.				
China—Sailing Vessels	103	47,502	66	29,679
Steamers	—	—	1	412
	680	366,675	590	326,976

It is not alone the importance which a foreign trading post is to a commercial community, valuable as that may be in itself. We have endeavoured to explain this position, in alluding to the fair of Nishney-Novgorod. Nations that have succeeded in establishing a colonial commerce, or in obtaining a superior footing in a foreign port, should value it, not only for the benefits which it directly confers on them and their various interests, but for the indirect results which it invariably produces. We will discover, by tracing the history of foreign commerce, that in proportion as a people succeed in augmenting the channels of international intercourse, in number and magnitude, so will they increase and extend their maritime and political importance, and lay the foundations of a trade radiating from every point between the domestic and the foreign termini, and embracing with each extension new countries and a larger demand for their products. This is true as a natural result of trade and international intercourse, exemplified in every instance, until we may regard it as a fixed law, or a final consequence, which admits of no exception. We perceive that the political power and commerce of the ancient nations which colonized first, or effected a foreign trade contemporary with a purely domestic or local traffic, expanded in an extraordinary manner, and in an almost incredible short period of time; whereas, such as depended on the expansions of their political power and commerce, by the conquest of their local trade—removing impediments and surmounting obstacles, before boldly adventuring on a foreign interchange of commodities—gained on their object but slowly, and in many cases never reached it. The same examples are shown in the modern history of trade. The policy or necessity which induced the Portuguese, the Spaniards, and the Hollanders to contract their maritime operations, has brought incalculable evil to their commerce, and lowered to insignificance the once exalted *prestige* of their names. We shall not pause to ask, was it policy or was it necessity. If policy, which it was not, it was founded in error; if necessity, which we know it was, it was the result of governmental faults, of mercantile abuses, of reckless and unfair dealings, or of misdirected efforts on the part of the commercial classes. For we contend that, notwithstanding the direful ruptures which have agitated the governments of Europe, and brought misfortune and even annihilation to nations of that continent, no event, whether of a warlike or political character, should have conspired to weaken their commercial relations abroad, or to check lastingly their progress in extending these relations. England—to return to our main point—is a brilliant example of what eminent intercourse with a particular portion of the globe has wrought in modern annals. With its eye upon India, it has only thought of the nearest routes to reach it.

The Crusades re-opened the route by the Dead Sea, and the Bosphorus overland discovery multiplied other routes, until we find navigators ascending the Mediterranean, or doubling the Cape of Good Hope or Cape Horn. Or, we see efforts making to penetrate the Arctic seas, to cross this continent, or to unite the English channel with the Bay of Bengal by a band of iron. Between the two countries—the ports of India and those of Great Britain—protections to the transit traffic have been demanded. British forts have arisen intermediate, or military stations been established on each route, which have answered the nucleus of a British colony or a British settlement; and while protection has thus been afforded, the germs of intermediate trade have taken root. Hence the statistics which follows. And it will be observed that although, on the whole, the trade of England had visibly and profitably increased with the continental nations *remote* from the direct overland route to India, the increase has been greatest with those to which the route approximates nearest, and not only greatest, but evincing a ratio of proportion in the general augmentation which singularly sustains our propositions advanced above.

TRADE OF GREAT BRITAIN WITH EUROPEAN NATIONS IN 1781 AND 1852.

	1781.	1852.
Exports to Denmark, Sweden and Norway	$1,700,000	$4,000,200
" Russia	680,000	7,500,000
" Germany, including Prussia	5,000.000	38,000,000
" France	40,000	13,000,000
" Flanders and Holland	12,000,000	24,000,000
" Spain	31,000	4,400,000
" Turkey, including Greece	6,000	15,500,000
" Madeira	125,000	210,000
" Canary and Azores Islands	none	500,000

The enlargement of trade with the other nations has been mainly the result of the great expansion of France, Germany, Russia, and Turkey, the territories including, or contiguous to, the Indian European channel. There may also be added to this the commerce brought within the radius, as:

Exports to Malta	$1,700.000
Ionian Isles	700,000
Egypt	3,300,000
Morocco,	160.000
Algeria	75,000
Tunis	16.000
Ports of Red Sea	9,000

The British trade with the coast of Africa on the west, and the islands intermediate with India on the Cape of Good Hope route, did not, in 1781, amount in the aggregate to $10,000. We now find that the domestic exports to—

South Africa, amount to	$4,000,000
Gibraltar	4,800,000
West Coast of Africa	3,800,000
Cape Verds	16,000
Azores	237,000
Mauritius	1,800,000
Mozambique Channel, Madagascar, &c	3,000,000

Let us now turn to the route by Cape Horn. It has been stated on British authority, that prior to 1803 the whole trade between the ports of England and the Straits of Fuego did not average $4,000,000 per annum; whereas, the trade returns now show the subjoined exportations:

To British West Indies	$12,000,000
Brazil	13,000,000
Buenos Ayres	4,500,000
Hayti	1,400,000
Uruguay	400,000
Dutch Guiana	30,000
South Sea Islands	100,000
Australia	14,000,000

In contemplation of a future route for the Indian trade across the isthmus, uniting North with South America, England early projected settlements along the eastern coast, as the Belize, Jamaica, &c. Her vessels, doubling Cape Horn, would cruise along the western coasts of South America; and thus originated that trade with the southern portions of our continent which has attained to such magnitude. It is equally certain, that if the British government had neither sought to command the Indian and Eastern trade, nor endeavored to establish colonies in the South Seas and Eastern Asia, the traffic now conducted on either of the ocean routes named, would have presented features very different from what they now do. Ramifying from Cuba, as a central point, on the isthmus channel, we find the intermediate trade of Great Britain to be—

Exports to British West Indies	$11,000,000
Honduras	900,000
Chili	5,700,000
Peru	4,200,000
Mexico	2,200,000
New Grenada	1,600,000
Venezuela	1,500,000
Central America	1,300,000
Foreign West Indies	8,000,000
In which may be included the Northern and Southern Pacific trade, radiating from this traffic, amounting to.	7,000,000

On this score we have said enough for our purpose. Keeping steadily in view the advantages which the commerce of the East was capable of conferring, the nation has sought every available means to command that trade, and to monopolize every artery which nature or artifice could put her in possession of, undeterred by even uncommon dangers or extraordinary hazards. Her merchants have boldly and fearlessly struck out in the paths of adventure; and the government, actuated by a liberal, if not in all respects a commendable policy, has encouraged and assisted their schemes, until we behold the kingdom in the condition of an empire, mistress of territories in every hemisphere, and holding maritime and commercial prominence in every port.

We would not wish to see the United States copying the example of England, in winning triumphs with the sword, where the open and many appeals of reason would fail in accomplishing the desired objects; nor the stratagetic and jesuitical policy of Russia, which involves its prey in meshes prepared only for their ultimate destruction; we would, however, have our merchants possess more general energy of character in some things, and less in others, and hazard something in original enterprises which do not hinge upon British interests, or suffer for want of British sympathy. If the Indian trade, so called, has directly and indirectly enriched the nations engaged in it, from the time of Hiram of Tyre to the present time, with no exception—no variation of the rule, which has proved a natural law—we do not see why our commercial classes should not turn their attention oftener, and with more practical effect, towards the waters of the Pacific, and not so frequently confine it within a sphere, of which Liverpool or London is the focus—the Bank of England the fulcrum.

Our examination of the subject may extend beyond this to another phase. We have spoken of the benefits which England herself has derived, through *direct* channels; but let us not forget that she has opened markets, in which she is *indirectly* benefited. The direct trade which is conducted with the Sandwich Islands, or with Cuba, or with any other foreign port, is primarily important; but intermediate ports transact a local and foreign business on their own account, in which, besides direct British importations and exportations, British products, through adverse and indirect channels, enter as leading elements. Hence Cuba and Hayti foster reciprocal commercial relations, as do both with the Caribbees; and all have an inter-reciprocal traffic with the West Indies and more distant ports. The islands of Polynesia are brought into friendly conjunction with the islands of Australasia, and all Oceanica with the coasts of Asia and America. Java exports 100 bags of coffee to Singapore; Borneo sends forth 100 bales of gutta percha to Calcutta; Buenos Ayres supplies New-Orleans with a thousand hides; and South-Carolina exports a ton of rice for consumption in Havana. These are indigenous products of the countries whence they are obtained; but the countries purchasing, frequently do not pay for them in their products. They are constrained, or they find it to their advantage, to exchange them for British fabrics, or British manufactures, which have been taken in direct or indirect exchange for their domestic exports; and in this manner, although apparently independent in itself, the trade is fostered and augmented as much to the advantage of Great Britain as to the nations more immediately concerned. The following exhibits the extent of this inter-reciprocal traffic:

IMPORTS INTO CHINA FROM INDIA—ANNUAL AVERAGE.

From Bengal—Merchandise	$10,000,000
Treasure	1,000,000
" Madras—Merchandise	1,500,000
Treasure	900,000
" Bombay—Merchandise	17,000,000
Treasure	700,000
Total	$31,100,000

EXPORTS FROM CHINA TO INDIA—ANNUAL AVERAGE.

To Bengal—Merchandise	$600,000
Treasure	1,500,000
Madras—Merchandise	100,000
Treasure	1,000,000
Bombay—Merchandise	2,000,000
Treasure	6,000,000
Total	$11,200,000

Average Yearly Exports from Van Dieman's Land	$3,000,000
" " Imports into same	4,000,000
" " Exports from New South Wales	6,000,000
" " Imports into same	14,000,000
Total	$27,000,000

[Note.—In these returns, no account is taken of the extra shipments of precious metals, consequent upon the discovery of the Australian gold mines.]

Average Yearly Exports from Java and Madura	$36,000,000
" " Imports into same	14,000,000
" " Exports from Philippine Islands	6,000,000
" " Imports into same	6,000,000
Total	$62,000,000

Average Yearly Exports from Calcutta at large	$45,000,000
" " Imports into " "	30,000,000
" " Exports from Bombay "	28,000,000
" " Imports into " "	26,000,000
" " Exports from Madras "	15,000,000
" " Imports into " "	9,000,000
" " Exports from Ceylon "	1,500,000
" " Imports into " "	3,000,000
" " Exports from Singapore "	10,000,000
" " Imports into " "	9,000,000
Total	$176,500,000*

NUMBER OF VESSELS EMPLOYED IN THE LOCAL TRADE OF THE EAST INDIA POSSESSIONS (BRITISH) IN 1842.—FROM BRITISH REVENUE TABLES.

	Ships.	Tonnage.	Men.
Mauritius	123	12,035	1,404
Bombay	97	41,532	2,575
Malabar	15	4,179	237
Tanjore	33	5,070	257
Madras	27	4,111	193
Coringa	19	3,775	157
Calcutta	167	45,169	2,248
Ceylon	620	28,826	2,480
New South Wales and Van Dieman's Land	361	34,532	3,066
	1,462	179,229	12,618

Russia has no maritime commerce of her own with Eastern Asia and the islands of the South Pacific. The bulk of her trade is with China, and this, as we have repeated, is conducted overland. Tea is the principal article imported from the latter country, for which furs, silver, and latterly large quantities of Russian cotton fabrics, are given in exchange. In the article of tea alone, Russia imports to the value of six, seven, and even eight millions of dollars per annum. The quantities of furs, leather, cottons, etc., exported and bartered for this, will be seen by the annexed returns:

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* This is the aggregate of the trade at large. The writer has no means of separating the local or provincial traffic from the distant and foreign trade. It is stated, however, that the reciprocal local trade of these ports per annum amounts to $80,000,000.

EXPORTS FROM RUSSIA TO CHINA OVERLAND.

Furs	value roubles,	2,400,000	$1,800,000
Leather	"	350,000	262,500
Hides and skins	"	300,000	225,000
Linens	"	200,000	1,500,000
Cottons	"	1,700,000	1,275.000
Woollens	"	1,400,000	1,400,000
Total		6,000,000	$4,762,500

These are the leading articles exported to China; but they do not make up a moiety of the entire traffic, as we have elsewhere explained. A committee, appointed by the House of Representatives to inquire into the expediency of a railroad across this continent, or a ship-canal, with a view to the augmentation of our domestic trade with the East, say in their report: "The Russian merchandise is taken to Kiatchu, thence across the frontier to Pekin, thence by canal to Shanghai, Ningpo, Amoy, Foo-chow-foo, and even to Canton; but the exchange for teas and other Chinese commodities takes place on the frontier at Mau-ma-chin. With our road all this trade would take place at Shanghai, Ningpo, or Amoy, and make a great saving in expense to the Chinese also." But it is a mistake to suppose that the Russian trade with the Chinese could be so easily directed into other channels. It has been secured by accomplished diplomacy, and well-enacted strategy, and in its details, its character, and its principles, has become so intimately interwoven with the political welfare, and even destiny of China, that its annihilation would jeopardize the integrity of that empire, and bring no certain remuneration to the despoiler. It has grown, and flourished, and expanded under no ungenial sun, despite the efforts of Great Britain to check it, and without any apparent exertions on the part of Russia. We must, if we hope to obtain a profitable and permanent foothold in the ports of the East, avoid a useless collision with the Cossack in the overland trade, which to that power is in reality a mighty political agency, subject to its control, whether for the welfare of Eastern Asia, China in particular, or for revolutionary purposes, in directing which the peace and independence even of India could be whelmed. The field before us is open to access, but it must be explored first by our vessels. Enterprise must seek to establish a position in the ports of the East by honest and honorable competition in the waters of the Pacific, not by a circuitous policy, or a display of aggressive measures. England, of all the distant nations which have maintained maritime intercourse with India, is a melancholy exception to the observance of forbearance or magnanimity where interests have conflicted, or religious prejudices have been brought into antagonism. And how is that power now regarded even in her own provinces and colonies of the East? She dare not advance a step, unless attended by engines of death; and from every jungle she is glared upon by fierce and terrible enemies, whose dreadful vengeance she will one day deprecate, when, like Jamaica, she has made India a waste garden, and "her haughty flag trails in the dust. To cover the misery of her deep humiliation, China will spurn her, while Russia may deign to spit upon her."*

A Liverpool circular lays some stress upon the fact, that the importations of cotton goods into Persia, Turkey, Central Asia, and China, show a decline within the last two or three years. This assertion is disingenuously made. The statistics of trade of these countries, so far as they are to be obtained, exhibit results which change the version. It may be true that British fabrics are not so eagerly sought for as formerly, but American and Russian textiles are in greater demand than ever, especially the latter, owing to the local advantages which the Russians possess to avail themselves of every favorable change of the interior Asiatic markets. The cotton manufacture of the empire was never before in so flourishing a condition. There are eight mills in successful operation in St. Petersburgh, and fourteen in European Russia, with an aggregate of eleven hundred spindles, all of which produce yarn, Nos. 32, 37, 38, 39, equal in all respects to the Manchester twists. So late as 1842, the empire imported muslins, colored stuffs, &c., for home consumption; now, besides supplying largely the local markets, a heavy business is done in exporting to Asiatic countries. The same may be said of the progress of the woollen manufacture. Russia has another and a more tangible mode of encouraging the China trade. It pays 6 silver roubles premium on every yard of velvets or half velvets exported to that empire, and 6 silver roubles on every yard of nankeens so sent. A drawback is also allowed on cotton and woollen goods destined to the Caucasian frontiers, and a drawback on teas imported for exportation to Europe, or for consumption elsewhere. Her commercial relations with portions of Asia, independently of the traffic of the great fairs, present the following features:—

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* Cobden's speech at Manchester, March, 1849.

Imports from	Turkey in Asia,	$700,000	2-3 woven cottons.
"	Persia,	3,200,000	2-3 woven cottons, silks and woollens.
"	Kerghis Steppes	1,200 000	1-2 cattle.
"	Khiva	65,000	Dye-stuffs and raw cotton.
"	Bokhara	500,000	1-2 cotton fabrics.
"	Taschkend	380,000	
"	Kokhan	35,000	
"	China	10,000,000	Principally tea.
"	Other countries.	500,000	
	Total	$16 580,000	

Exports to	Turkey in Asia	Furs, leather, cottons, &c.	400,000
"	Persia	" "	500.000
"	Kerghis Steppes.	" "	1,190,000
"	Khiva	" "	31,000
"	Bokhara	" "	200,000
"	Taschkend	" "	200,000
"	Kokhan	" "	36,000
"	China	" "	6,000,000
			$8,557,000
			16,580,000
		Grand total	$25,137,000

We have little left to add. Our main object has been to show, that whatever course has been pursued by nations to secure the trade of the East, it has enriched them, when so obtained, although the means have varied, and the policy has conflicted. We desired likewise to point out the different manner in which nations have been strengthened in forming this commercial alliance, by adducing examples totally opposite in character, as Russia and Great Britain. And, finally, we had a third purpose, to show, that while the trade itself, by direct agency, has been so beneficial; it has built up an indirect commerce of even greater magnitude and importance, as Russia in Asia, and England throughout the world. Let us ponder these plain facts; and be ready, with something more of original enterprise, to profit by the opening which the Chinese revolution may produce, and advance more boldly with our wares and fabrics into a quarter of the globe to which we have been too long comparative strangers.

ART. II.—EARLY LIFE IN THE SOUTHWEST.

No. IV.

CAPTAIN JOHN McHENRY, PIONEER OF TEXAS.

BATTLE OF NEW-ORLEANS—A CRUISE WITH LAFITTE—GEN. LONG'S EXPEDITION IN 1819—BATTLE AT GALVESTON—MILAM—CHRISTY—JOHN AUSTIN—IMPRISONMENT IN MEXICO—MURDER OF LONG—JOEL R. POINSETT—SIEGE OF PORTO CABELLO—AUSTIN'S COLONY—TEXAS REVOLUTION—MASSACRE OF THE DOUGLASSES.

JOHN McHENRY was born in the county of Antrim, Ireland, in 1798, of humble parentage, and received little or no education. At an early age he manifested a fondness for the sea, and in 1811, meeting with opposition from his father in the gratification of his wishes, ran away, but was caught and taken home. His father, however, seeing his determined spirit, yielded his assent, and the same year he bade adieu to his native isle and sailed for the shores of America, and in 1812 arrived in New-Orleans. He followed the sea coastwise till about the time Gen. Jackson arrived in the latter city, and then volunteered his services to operate on a gun-boat on one of the lakes near the city, in which position he performed valuable services, and took part in the great contest of the 8th of January.

Soon after this, the great struggle for liberty in South America was arresting attention in the Southern States, and the celebrated Lafitte obtained a commission as privateer from the government of Venezuela. In the year 1816 or '17, (his memory is not so clear as to exact dates,) McHenry enrolled himself under Lafitte for a cruise through the West Indies and along the Spanish Main. The fleet of the reported pirate consisted of the brig Gen. Victoria, the schooner Blank, and another whose name is not remembered. They repaired to Galveston Island, and there fitted out—each vessel being well manned. From Galveston the fleet sailed down the coast, off Tampico, Vera Cruz and Campeachy, and took several unimportant Spanish prizes. At Sisal, on the coast of Yucatan, they cut out a fine large schooner in the night, under the walls of the port, which was highly prized as a vessel, and proved to have been a slaver.

From Sisal, Lafitte sailed for Cape Antonio, Cuba, and on the way espied a fleet of ten merchant vessels, under convoy of a Spanish frigate. Lafitte made signal for his vessels to come alongside for consultation, and then addressed the men on each, to know what they were willing to do—to fight or not. The men held a brief "talk," and authorized their companion, Theodore Rawlins, a Baltimorean, to announce their anxiety to fight, saying they had now been out five months and realized nothing.

Lafitte was evidently discomfited by their bold response, and then, for the first time, disclosed to his followers a startling fact—that his commission from the Venezuelan government had expired, and if they should be captured, their fate would be such as the law awarded to pirates. This annunciation spread the utmost discontent and mortification among the better class of the men, and they, to the number of forty-one, demanded of Lafitte one of the vessels to enable them to reach New-Orleans. With some reluctance, he gave them the brig Gen. Victoria, first taking off her guns, and they sailed in company to the small island of Muger (Moo-her), near Honduras. Here they separated, and the Victoria tried to beat to windward to clear a reef; but on the following morning Lafitte was to windward and bore down upon her, and ordered Theodore Rawlins and one Long, whom he suspected of having persuaded these men to desert his standard, to be sent on board his vessel, which, as the Victoria was entirely unarmed, was done. In a short time, Rawlins was sent back with an order to cut the Victoria's topmast, flying topmasts, and flying jibboom, and heave them overboard, saying also that Rawlins might return home, but that he should send Long to Liberia, to suffer for his desertion. The orders of the freebooter were of course obeyed.

The vessels now separated, and McHenry's connection with, and knowledge of Lafitte, there terminated. The Victoria, at the close of three weeks' sail in her disabled condition, reached the Balize; not, however, without serious apprehensions on the part of the crew, lest they should be boarded by a revenue cutter and placed under arrest as suspicious characters. She came-to outside, sent in her long-boat, and surrendered to Capt. Gates, custom-house officer, stating the whole facts to him. Gates treated them kindly, and sent the vessel up to New-Orleans, where she was claimed by the Spanish Consul as having been captured previously from Spain. The late Isaac T. Preston, sympathizing with the unfortunate men in their destitution, volunteered his professional services, and had the vessel awarded by the Admiralty to them.

Capt. McHenry, yet but a youth, remained about New-Orleans from that time until the departure of Gen. Long's celebrated second expedition for the invasion of Mexico, through Texas, to aid the patriots in the revolutionary struggle, then in its ninth year, and near its close—this was in 1819.

The Mexican revolution opened in 1810. In the fall of 1812, the first party of American adventurers, some 300 in number, had entered Texas, through Nacogdoches, under the chief command of Colonel Magee, (formerly a Lieutenant in the United States Army,) including as officers also Kemper, Suckett, Ross, Perry, and others. They took Goliad, (then La Bahia), were besieged all winter by the royalist General Salcedo, (Magee dying in the mean time,) but in the spring the latter retreated, was pursued and defeated on the Solado, near San Antonio. The patriots and American adventurers now obtained entire control of San Antonio and its dependencies; but in a short time General Ellisando came on with 2,000 royalist troops. He was met beyond the city, surprised, and completely routed. A second detachment, however, was sent forward, and on the 13th of August, 1813, the famed battle of the "Medina" was fought on the Laredo road, eight miles beyond the Medina, by Arredonda, with 2,000 regulars, and Toledo with 600 Mexicans, 400 Indians, and 275 or 300 Americans, under Colonel Perry, Kemper, Suckett, and others. The patriots were defeated with great slaughter, very few Americans escaping. This closed that effort on the part of the Americans; but in 1817–18, General Long, a young man of fine talent and noble ambition, having heard of the gallant struggle of the Mexicans for liberty, conceived the idea of aiding them or of establishing a free government on some firm basis. He fitted out an expedition at Natchez, Miss., advanced to Nacogdoches, and there established a provisional government. His force was very small, and being temporarily divided into three divisions, was attacked in detail, and driven in fragments across the Sabine.

Defeated in his efforts, Long resolved upon a different plan of operations. He determined to enter Texas by water, and make Bolivar Point, on Galveston Bay, his head-quarters, for the present at least, by which means supplies could be more easily received from New-Orleans.

In 1819, therefore, General Long carried this resolution into effect, conveying his men and supplies from New-Orleans to Bolivar Point in various small vessels. He at once fortified the place and mounted some guns. A few days before his intended departure for the western towns of La Bahia and San Antonio, Captain McHenry came down from New-Orleans to repair a vessel for Captain Cochran, who belonged to the expedition, and Long persuaded him also to unite his fortunes with those of the adventurers. The *nominal* head of this expedition was General Trespalacios, a patriot chief, who had fled from Mexico to New-Orleans, and there formed an intimacy with Long. Long was *de facto* the master spirit.

It was agreed that Trespalacios, with a few followers, and a small sloop, should go down and effect a landing at or near Tampico, there to rally a patriot force to co-operate with Long, who was to advance from La Bahia (Goliad) or San Antonio by land. Here we find the celebrated Colonel Benjamin R. Milam, (afterwards so distinguished in Texas, and who gloriously fell at San Antonio in 1835,) and Colonel Christy, one of the New-Orleans family, both of whom accompanied Trespalacios on his expedition. They left Galveston before Long, and will be referred to hereafter.

The entire effective command of General Long, after the departure of Trespalacios, numbered fifty-two men. It would be very interesting to many of the Southwestern readers of the Review to have the names of all of the daring party, but Captain McHenry finds it impossible to recall them all. I obtained from him, however, the subjoined list:

General Long, commander; Major Burns, an Englishman; Captain John Austin, (afterwards distinguished in Texas;) Captain Johnson; Captain Williams, of Kentucky; Lieutenants, Egan, a New-Yorker; Robertson, a Tennesseean; E. Stanly Williams, (native of Connecticut—had lived in Virginia,) aid-de-camp to Long; Lieutenant Elliott, an Englishman; Lieutenants Chase and Toby, both of Massachusetts; Sergeant Robertson, (Scotchman, and afterwards a traitor;) Patton, (office not remembered;) Dr. Allen, Surgeon, (an Irishman and ex-surgeon in the British navy;) privates, John McHenry, Ebenezer Lathrop, of Massachusetts, (accidentally killed at La Bahia;) James Wilson, of Tennessee, (afterwards a traitor;) White, (subsequently famed in Texas as "Old Blanco;") Smith; another Smith, a jeweller; Frank Keller, of Mass.; John Wyatt and George Early, of Penn.; Henry Wall, English; Black, of Louisiana; Isaac, his son; two Irishmen, known as Big and Little Patrick, (both blacksmiths, and both traitors at Monterey;) Lincoln, a daring and talented young man, from Massachusetts; McDonald, a Marylander; Lieutenant Rosenberg, a German; Bliker, a Russian; and Harnstein, a German, (both traitors at Monterey;) Captain Browne, a gallant Swede, intended as a naval officer, also accompanied Long.

While General Long was at Bolivar, a French sloop, freighted with wines and Mexican supplies, bound to Cassano, stranded on Galveston Island, near the present city. The Caranchua Indians, to the number of 200 warriors, were then encamped in the immediate vicinity, and at once attacked and butchered all on board the sloop, plundered the craft, and entered upon a general jollification and war-dance. Long determined to chastise them for their baseness, and accordingly, after nightfall, at the head of thirty men (including McHenry,) he passed over in small boats to the island, and made an unexpected assault upon the exulting wretches, who were then greatly heated by the wines they had so cruelly obtained. The Caranchuas, however, though surprised, were not alarmed, but seizing their weapons and yelling furiously, met their assailants with determined courage. With such superior numbers they were a full match for Long—the combatants soon came to a desperate hand-to-hand fight, of doubtful issue; but Long, ever calm and resolute, directed his men in a masterly manner, and effected a retreat to his boats, leaving thirty-two Indians killed, and three of his own men dead, and two badly, besides several lightly wounded. George Early was severely wounded. Long's party took two Indian boys prisoners, and retained them—one of whom, however, was accidentally killed some time afterwards. This is doubtless the first engagement known between the warlike Caranchuas and the Americans. That once powerful race is now extinct, or so nearly, as to have no community existence. Young Lincoln signalized himself in this engagement; he was a gallant, but wild fellow—had left home well-to-do in the world, gambled his money away, turned preacher, and finally resolved upon frontier life.

When Long left Bolivar, his wife, (still residing in Brazoria county, Texas,) Mrs. Dr. Allen, and a Dr. Edgar, were left at that place. Anson Taylor, a stalwart frontiersman, at the same time settled on the Trinity, near the Cooshattee village, and Walter C. White, and Col. Knight, (now of Brazoria county), went up on Buffalo Bayou to make a crop of corn. These were doubtless the first American settlements west of the Sabine. Mr. White subsequently became a wealthy merchant, and died in 1837 or '38, at Brazoria.

Among Long's followers was also one Mordella, a nephew to Trespalacios, who was found to be engaged in a conspiracy against the expedition, and was tried and executed on the east end of Galveston Island.

All things being in readiness, Long set sail, destined for La Bahia. His fleet consisted of a small schooner and two sloops. They entered the bay of Matagorda, thence passed through what is now known as Bayou McHenry, into Espiritu Santo Bay, and up the Guadalupe River to the "Mesquit Landing," some 15 miles from the mouth. Here they disembarked, and marched for La Bahia, now Goliad, leaving the elder Black in charge of the boats, (who was killed a few days later by the Spaniards). They surrounded the fort at night, undiscovered by its occupants, and at dawn made a gallant onslaught, under the cry of "Republicanos!" The resistance was feeble, and the garrison soon surrendered.

Long remained in quiet possession of the town and fort for three days; but on the morning of the fourth day, was aroused by the reveille of the royalists. They proved to be 700 cavalry and four pieces of artillery from San Antonio, besides some irregular troops from the immediate vicinity, commanded by Francisco Perez and Fernando Rodriguez. They crossed the river, and attacked Long in the fort, but were repulsed with severe loss. The royalists then sent in a message by a Frenchman, to the effect that they did not wish to spill blood, and if Long would surrender, he should be kindly treated, &c. Long declined, but proposed to settle the matter by single combat with any man in the royalist camp, which was also declined. About this time, Garcia, who commanded the fort when it was surrendered to Long, and who had been warm in protestations of friendship ever since, fired a pistol at the General, the bullet grazing his person. The action was then renewed, and vigorously kept up for two hours, the royalists occupying the housetops, protected by the palisades, the Americans dealing death to them whenever one came within rifle shot. Considerable damage was done them by the sharp-shooters. The royalists again sounded a parley, and sent in the Frenchman a second time, saying there was a misunderstanding in the matter; that they had mistaken Long for the late royalist garrison—and had attacked him under that impression—that they were *patriots too*, and would receive Long as a friend, &c. Long asked them why they fought under the royalist flag? "Because," said they, "there is a large royalist force near by, and we wished to deceive them, if it became necessary." Things remained in this position some two days, when, strange as it may seem, they actually deceived Long, and induced him to receive them as friends. It was agreed that, merely in order to quiet the women in La Bahia, Long's party should, for the present, lay down their arms. Long was to have an escort to conduct him south to Trespalacios, and whenever he sent an express back, his men should follow. It is difficult to reconcile the stupidity of General Long on this occasion, with his usual undoubted boldness and shrewdness. It can only be accounted for by the unequalled powers of deception peculiar to his enemies on all similar occasions. The terms of capitulation were reduced to writing.

So soon as the Americans laid down their arms, the Spaniards embraced them very warmly, professing a sincere friendship. Horses and an escort were promptly provided, and Long, Burns, and John Austin, were sent forward to San Antonio. As soon as they were gone, the remainder of the prisoners (for prisoners they were) were ordered into line, and each man required to give his name, age, and place of nativity, avowedly to allot them out for kind treatment among the families in the place. But while this was going on, the house was suddenly surrounded by a large body of soldiers; the bells rang, loud huzzas were heard outside, and they were told they were prisoners.

Being stripped of everything but their clothes, they were thrown for four days into a filthy prison, and half-fed on miserable beef and half-cooked corn, producing a distressing flux, from which Patton and Egan finally died. This was in the winter of 1819-'20; and in very cold weather they were hurried on to San Antonio, their allowance being a little dried beef. After a stay of three days, they were sent on with Long, Burns, and Austin, under a strong guard, to Loredo, where they were kindly treated, and transferred from the control of the villanous Perez, to that of a young and humane officer. The people gave them a fandango, and thenceforward they were allowed 25 cents per day to feed themselves. The people loaded them with presents. From Loredo they were marched to Monterey, and placed in charge of General Lopez, commander of the Eastern Provinces. His brother became devotedly attached to Gen. Long, and rendered his captivity less painful. At this time the Mexican revolution was near its close. Lopez had around him two regiments, one royal, the other suspected of republicanism. The officers quarrelled—went out to a spring for a hand-to-hand fight, and killed four of their number.

The Russian in Long's company, while at Monterey, insulted one of Long's officers, *as an American*, one day in his presence, and in the service of Gen. Lopez. Long saw instantly the fellow's design of making fair weather for himself with Lopez; and with the spirit of a tiger, knocked him down, and would have dispatched him, but for the interference of others. Lopez said that if Long went to heaven and found no republicans there, he would revolutionize it. Though distant at first, Lopez yielded to the winning and manly address of Long, and was very kind to him. A month passed in Monterey without any thing of interest, when Long asked permission to proceed to the city of Mexico. He, Major Burns, and Capt. John Austin were allowed to do so. At this time, the other members of the expedition were offered the option of returning to the United States, taking the oath of allegiance to the new government, or remaining as prisoners, with the privilege of the city limits. White (Old Blanco), and one of the Smiths, returned home; the others preferred remaining under duress, hoping thereby to receive some remuneration for their sacrifices in the patriot cause, and continued in Monterey over six months.

Long reached Mexico just as the new government was being organized, and there met Trespalacios, Cols. Milam and Christy. The news of the acknowledgment of Mexican independence by the United States had just arrived, and spread joy throughout the country. Trespalacios was appointed Governor of the Department of San Antonio de Bexar. Long's fine address and commanding person soon won him friends, and all seemed anxious to do him honor. Trespalacios alone was fired with jealousy towards him, and determined on his ruin. Long had been invited to visit the Minister from Chili, whose rooms were in the Old Inquisition. Going in at the gate, he was confronted and shot dead by a soldier, as all believed the hired tool of Trespalacios. Indignant at this unholy sacrifice of their noble chief, Milam, Christy, and Austin left Mexico and rejoined their companions in Monterey, reporting their suspicions of Trespalacios. They, with McHenry and others, resolved, if possible, to avenge Long's death; and as Trespalacios would in a short time pass through Monterey for San Antonio, they hoped an opportunity would offer to take his life. The plan was revealed to their companions; two of whom (Wilson and Miller) went on to Saltillo, met Trespalacios, and told him of their designs. An order was then sent on for all the men to be sent under guard to Saltillo, but without any intimation of the cause. Milam, Christy, and Austin at once suspected they were betrayed. They were confined separately; but McHenry and Keller, who were still at liberty, visited them, and with Wyatt and Williams, procured and secreted some arms, and concerted a plan of escape. Unfortunately, however, Col. Christy, (who had been a member of Gen. Mina's celebrated expedition, and had possession of important papers in relation to that, as well as Long's) had deposited his papers with a Mexican officer's wife, and would not leave without them. The plan was thus frustrated, first by delay, and then by their removal.

They were all marched off to San Luis Potosi, Queretaro and the city of Mexico, stopping at various places for several days or weeks. At San Luis la Paz they beheld the town razed to the ground, and the spot where the valiant Mina had reluctantly put 250 royalist officers and citizens to death, in retaliation for their unheard-of cruelties to the patriots. From San Luis Potosi they were escorted by a colonel, who had served under Mina with Christy, by whom great kindness was shown them. In passing through towns where crowds would turn out to gaze upon them, this officer would take Christy's arm and walk through the streets with him as a mark of respect; at Queretaro he was specially kind.

At this time the fiery spirit of republicanism was on the wane, and Iturbide had been proclaimed emperor. At the city of Mexico they were placed in close confinement. The celebrated General Wilkinson, once of the United States army, and a Mr. Symon, were in the city. Wilkinson appeared cold to the unfortunate men, and never visited them; while Lyman was unremitting in his kindness to them, sparing neither trouble nor money to render them comfortable. Capt. McHenry speaks of him in terms of the highest veneration.

After remaining in close confinement in the city for ten months, the late lamented Joel R. Poinsett arrived in Mexico as the first minister from the United States. With a nobleness that endeared him to each of the unfortunate men, he pressed their case upon the government, and procured their liberation and an escort to Tampico, where, by his orders, the United States sloop of war John Adams was in readiness to convey them home; the officers and men of the John Adams raised money to clothe them and provide for their personal wants. The Adams touched at Havana, when the men had their choice of seeking a passage to New-Orleans or continuing in this vessel to Norfolk, Va. McHenry and Keller went to New-Orleans; Milam, Christy, Austin, and all the others, continued on to Norfolk. This was in December, 1821, and here ends the expedition of the gallant but unfortunate Long—one that, in the opinion of the writer, has never been correctly chronicled before, and one in which the people of Texas, at least, have ever manifested a deep interest. The most ample notes were obtained from Captain McHenry on the subject, and no man is more entitled to confidence and respect for his integrity than he. It may be interesting to remark also, that he now knows of no other living member of the expedition. Milam and Austin afterwards became distinguished men in the annals of Texas.

SIEGE OF PORTO CABELLO.

In the spring of 1822, an expedition was fitting out in New-Orleans, to aid the illustrious Bolivar in his South American struggle for liberty. McHenry and E. Stanly Williams, bosom friends in Long's expedition, met there and determined to join it. This Williams was a talented and true-hearted man, and a devoted friend of Colonel Milam, both before and after this.

They sailed in the sloop of war, Eureka, Captain Pelott, a North Carolinian, with about 150 men, for Porto Cabello, Venezuela, and soon arrived at their destination. They found several republican vessels in waiting for them—the Iris frigate, a gun brig, commanded by Captain Daniels, of Baltimore, among them. The town was well fortified, and resisted all attempts by the vessels' guns. Several days were spent in a fruitless bombardment. Immediately behind the city there was a towering rock, lifting its spiral peak above the town and harbor. An old Scotchman proposed to lead a party in getting a cannon on its summit, to pour death down into the fort. His request was granted, and after fourteen days of incessant toil in cutting, drilling and climbing, the highest point was reached, and the big gun began to throw "leaden rain and iron hail" down into the fort, breaking legs, bursting skulls, and knocking the whole establishment into a perfect compound of human fragments, spreading consternation and dismay in the fort and in the city, till the doomed occupants imploringly begged for quarter, and surrendered at discretion. This action was fought under the flag of Colombia, and the victory proved to be of immense advantage to Bolivar.

About this time news reached Porto Cabello that a French vessel had captured two Colombian gun-boats in the West Indies. The Eureka was ordered to sail over and inquire into the matter, as France and Bolivar were friendly. She sailed out through the Moona passage, but missed the French fleet; ran down to the Spanish end of San Domingo, where the negroes ruled as the lords of the land, and who were also on friendly terms with Colombia. The Eureka had run short of water, and sent a boat with a lieutenant, midshipman, and four seamen, (McHenry among them,) into a river to examine for that necessary article. Notwithstanding the Colombians and San Domingans were friendly, the officer in charge of the boat was instructed to say, in case any difficulty should arise on shore, (lest through the Domingans the Spanish fleet should learn their whereabouts,) that they hailed from the British sloop of war Villarosa, Captain Sir William Bently, then known to be in those seas. In the mouth of the river they were arrested by a squad of negro soldiers, and, notwithstanding their declaration, were sent some forty miles into the interior, to be examined by the governor. In the afternoon, the Eureka became alarmed, and fired signal guns for the boat to return. In reply to this, the negroes on shore, after night, built large fires on the beach, and danced around them in derision of the uneasy vessel. This induced Captain Pelott to believe his men were in the hands of pirates, and thereupon he landed his entire force, seized the local governor and other officers, burnt many houses, and returned to the Eureka, leaving a message for the authorities, stating to what flag he belonged, and that the prisoners he had taken should be held as hostages till the delivery of his men. The governor to whom the prisoners had been sent, at once released and started them back, but ere they had gone ten miles, information of the sortie from the Eureka reached him, when he ordered them back, and had them sent forward to the city of San Domingo, and there imprisoned to await further orders. On the way, the lieutenant, a tyrant at heart, undertook to impose an onerous duty on McHenry, who being in an unpleasant mood at best, administered a severe chastisement, *a la fisticuff*, to him. They were imprisoned in a fortress rising upon a rock at the water's edge.

The Eureka returned to Porto Cabello to procure from Bolivar a formal demand for his men, and was expected at the close of six weeks daily to arrive with the demand. But McHenry dreaded the power of the petty lieutenant, in the event of their return to the vessel, more than the chances of escape from his cell, and securing an interview with the mate of the Boston brig Martha, Captain Hait, then about to sail, he resolved to reach the United States if possible. Accordingly, he constructed a rope out of his clothes and some strings furnished him by the mate, and about midnight let himself down from a third story, through an opening in a privy, and directly over the water. To his amazement, when he had descended to the end of the frail rope, he found "no bottom;" but to reascend was impossible, and, repeating a fervent prayer to God for protection, he "let go," and found bottom about three feet below. The surprise, in the darkness and stillness around, for the moment overcame his reduced powers; yet no time was to be lost, and he soon swam out to the brig, and had scarcely been securely concealed under a pile of mahogany logs prepared for the emergency, when a squad of soldiers boarded the vessel, and made a diligent but fruitless search for him.

McHenry reached Boston, and then returned to New-Orleans without anything of interest occurring. In the latter city he again met his friend E. Stanly Williams, from whom he learned that the Eureka arrived at San Domingo two days after his escape, and recovered the other prisoners.

Austin's colony in Texas was now being founded, and McHenry determined to identify himself with that interesting movement. He purchased a schooner, and placed her in the trade to the Brazos River and Matagorda Bay in the autumn of 1822. In 1826 he aided Kerr and De Witt in founding the "old station" on the La Vaca River. He and Captain Pearce then jointly owned and ran a schooner in the same trade till 1828–9, bringing over a considerable number of emigrants and goods for Mexican traders into the bay of Matagorda; among the latter, two cargoes for the father of the writer was landed at Matagorda in 1827–8. In the spring of 1829, he bade a final adieu to "life on the ocean wave," and, taking to himself a help-mate, settled at his present residence on the La Vaca, where nothing occurred unusual to frontier life till the revolution of 1835.

When the Patriot army rallied around San Antonio in the autumn of '35, McHenry was there eager for the fray, having been in the first engagement at Gonzales. Colonel Wilson had just escaped from his second long imprisonment in Mexico, and joined the volunteers in the attack on Goliad. He arrived a few days later at the camp before San Antonio, and then, for the first time since their separation at Havana in 1821, met and recognized McHenry. Their meeting, so unexpected, yet so affectingly pleasing, brought tears from the eyes of General

Austin, and all who witnessed their long embrace and their manly emotions. Two truer hearts never met; but, alas! that of the chivalrous Wilson soon ceased to beat. He gloriously fell at the head of his storming column, December 18, 1835, in San Antonio.

McHenry distinguished himself in the "Grass Fight," near San Antonio, on the 28th November, 1835, and after Cos' capitulation, returned home with the citizen soldiery.

In February, 1836, Santa Anna arrived at San Antonio at the head of his heavy columns of mercenary troops. The settlers of the west were flying towards the Sabine. The families of John Douglass (McHenry's father-in-law) and Dougherty alone were left in an isolated position in what is now the southwestern part of La Vaca county. Douglass had two sons—Augustine, aged fifteen, and Thaddeus, aged thirteen—who were out herding cattle about the 4th of March. They heard guns and Indian yells at the house, and on approaching under cover of a chaparral, discovered the house in flames. They secreted themselves till night, and then approached their late happy home, when they found their father, mother, sister and little brother, with Dougherty, one son and two daughters, all butchered and scalped by the bloody Zanguas, the house robbed, and their little home a pile of ashes.

The boys were young, inexperienced, and now alone in the wilderness. They knew that all the Americans were retreating to the east, and thither they determined to follow, if they could do so. They reached the La Vaca at Bernard Brown's deserted place, travelled down stream to the old Atoscosita road, followed it to the Colorado, where they overtook the army of the Mexican General Woll, to whom their sad story was communicated, and by whom they were most kindly received and provided for. In a few days they were taken by a Frenchman named Augusta, a traitor to the Texians, to his place on Cummings' Creek, where he had collected a lot of runaway negroes, and a great many cattle belonging to the retreating citizens, from which he was supplying Woll with beef at enormous prices. In the meantime, the field of San Jacinto was won, the Mexicans were preparing to retreat, and small parties of Texians were venturing back. Augusta sent Augustine Douglass down to learn on what day Woll would leave on his retreat. On the same day a party of Texians, headed by Allison York, who had been informed of the existence of the den of Augusta, attacked him and his outlawed runaways, and drove them in haste to the river bottoms. Little Thaddeus Douglass, not understanding the nature of the fight, and alarmed for his own safety, fled down the road, and very soon met his brother returning from General Woll's camp on the Frenchman's fine horse. With equal prudence and financial skill, they concluded to save *themselves* and the *noble steed* at the same time; and both mounting, put off at a rapid pace for the Brazos River. They had not travelled many miles, however, when they met the invincible Colonel Henry W. Kames, at the head of the Texian cavalry, from whom they learned, for the first time, of the glorious victory of San Jacinto, and that they would yet see their only surviving sister and brother-in-law, McHenry and wife. These boys, thus rendered objects of sympathy, formed a link in the legends of the old Texians, and still reside on the La Vaca, much respected for their courage and moral deportment.

This closes the principal interesting incidents in the checkered career of the unpretending but true-hearted Captain John McHenry. He still lives in the vigor of health and social enjoyment on the La Vaca, where peace, warm hearts, and hospitality ever reign to welcome his old friends.

While this narrative has been necessarily long, embracing portions of different historical epochs and incidents, it is believed the people of the Southwest, and especially of Texas and Louisiana, will feel repaid for its perusal. It is a simple narration of facts.

Art. III.—AMERICAN INSTITUTIONS—THE MONROE DOCTRINE—INTERVENTION, &c.

The position of the Review has ever been distinctly defined from the period of the issue of the first number in January, 1846. Its pages have been open to the discussion of all the great questions before the country, in a spirit larger than that of mere partisanship. The advocates of free trade and of protection have been allowed to speak of State rights and of consolidations, of intervention and non-intervention, etc.; and even the opponents of slavery, when disposed to measure argument with its advocates, have in one or two instances been allowed a place. During all of this, no one has doubted, or could doubt, of the individual opinions of the editor, which he has preserved with little change, and which on proper occasions he has never failed to express.

The article which follows is from the pen of a distinguished citizen of South-Carolina. It was written in review of some of the articles of a magazine published for a few months at the North, believed to be from the pen of one of the most distinguished writers in that quarter, and one of the warmest and ablest advocates of the South and of her rights.

We have no opinions to express upon the subject of this article. It expresses its own opinions. It is not for us, but for our readers, to object or to approve.—[Editor.

The editor of the "United States Review" very properly expresses his surprise at the continued popularity in this country of "Blackwood" and other British Journals, and that they are in greater number subscribed for, and more punctually paid, than any of our best journals. This he thinks the more remarkable, as these works seize upon every occasion to abuse our country, and to misrepresent its situation and institutions. Many of these articles are supposed to be written by Americans, who are hired to traduce their own country. No one who reads the articles in the "Westminster," in relation to American affairs, or to American literature, can doubt for one moment that they are written by an American—and that, too, by an American full of local and sectional prejudices. To be convinced of this, it is only necessary to recur to the article on Mr. Webster. "Nay," says the reviewer, "it is now publicly known that an American writer has condescended to become a regular coadjutor of 'Blackwood's Magazine,' the periodical of all others most anti-American, and most offensive to an American citizen, who has any feeling for the honor of his country, or who nourishes the slightest sympathy for the character of his countrymen." And a well-known pretender to literature in New-York, whose name we need not mention, is, we believe, the person who in the "Westminster" deals out the honors and censures to American authors and to American genius! From this filthy source Europe is informed that there is not a writer, nor a book, nor a journal south of New-York, that deserves to be mentioned with such distinguished writers as Rufus Wilmot Griswold, or with such able Reviews as the "North American." Such men seldom "shrink from the disagreeable duty" (as the "Westminster" calls it) "of pointing out the blemishes and failings" of their own mother country.

Warned against such injustice, and particularly of these abuses and misrepresentations of their institutions, will Southern gentlemen still continue to subscribe to such British Reviews, while they neglect those at home, which are engaged, one-third of their time, in answering and refuting the slanders of the very British Journals that are so popular with us? We really trust that there will be a change soon, in this matter, or it will be too late. If we do not encourage our own press, we must go to the dogs, and deserve to go there.

"Thus it has happened (says our reviewer) that these productions of the British Press, which best administered to the feelings and interests of that government, by undermining democratic principles, and calumniating, caricaturing, or misrepresenting the people, have almost always been selected for republication in the United States by booksellers, who understand their business, in preference to all others. If an Englishman or Englishwoman puts forth a book of travels in the United States like that of Basil Hall, Mrs. Trollope, or Dickens, containing little else than the distillations of prejudice and ignorance, and filled with distortions of our manners, habits, and social state, our literary caterers absolutely wrangle for the exclusive honor or profit of these publications, because experience has taught them, there is a great party in this country whose palate is peculiarly susceptible to such high-seasoned dishes. Hence these periodical paroxysms of philanthropy, these outbreaks of pretended sympathy for slaves, which are, in fact, nothing more than significant indications of their apprehensions of the consequences ultimately to result from the growth of the United States, and the irresistible energies of freemen. It is a POLITICAL feeling, not a genuine sentiment of humanity, that infuses such warmth and vigor into these reiterated and persevering attempts against the peace and union of the United States, under the hypocritical pretence of a deep interest in the freedom and happiness of the human race. There is an irreconcilable inconsistency in the course pursued by American and European abolitionists, which convicts them of rank hypocrisy."

The Review proceeds to say, "There is not a crowned head in Europe, from the Emperor of Russia down to the King of Naples, who does not, while pinioning his subjects, or those who are elsewhere struggling against oppression, to the earth with the bayonet, mourn over the destinies of the African race." The Review expresses its belief that the unparalleled popularity of "Uncle Tom's Cabin" was owing entirely to "the fact, that it was susceptible of being made a tool of the Abolitionists in one quarter, and in the other, a political instrument for undermining the influence of republican institutions"—and that had the inhabitants of "Uncle Tom's Cabin" been white slaves, and not black, we would have heard nothing of the genius of Mrs. Stowe.

Their jealousy or fear of the influence of our institutions is not to be inferred merely. It is openly confessed by "Blackwood." "As things are now turning," he expresses his fears that "the sympathies of the British people may not lead them to an over-estimate of American institutions." Hence his assault on, and misrepresentations of the South. In the last number of the "London Quarterly" (July, 1853), in an article on Signor Ruffini, in which European insurrections form the subject of discussion, the writer steps out of the way to give a blow to what he calls the true republican maxim; that not only does the end justify the means, but that vice and virtue change their nature in proportion as they advance or impede "the cause;" a name by which he says democracy is designated all the world over. This "cause," then, is no doubt the great source of offence to British philanthropists, and American philanthropy is a mere cat's-paw to the British. Otherwise, would that vulgar, ill-bred woman, Mrs. Stowe, have met with such a reception as she has received from the proud, upturned noses of the English aristocracy?

They have, no doubt, had their rooms since fumigated and cleansed, as in case of a visitation from the devil.

The reviewers, very properly, do not consider the African race as constituting a component element of our government. They can enjoy none of its functions, but are protected, as in the case of many other sojourners. Indeed, if we are to judge from the laws of various anti-slavery States, excluding free people of color from their borders, he would conclude that it was the universal opinion of all America. But while the free negro is driven away, the runaway negro is received with open arms. This is a *Stowecism* peculiar to the Greeley school. "That the slaves were not included in the Declaration of Independence," says the reviewer, "is certain, for it is impossible to conceive that the Southern delegates who gave it their sanction, would have signed an instrument which virtually divested them of their most valuable property. The subsequent debates in the Convention by which the Constitution of the United States was framed, also clearly and distinctly show, that whatever may be the words of that instrument, it was never intended by the delegates who signed it, to recognize the principles of equality between the European and African races."

The courts of Massachusetts, with Judge Shaw at their head, have *enacted*, not adjudicated, the similar decree of the British courts, that a slave becomes free so soon as he places his foot upon their soil, that, forsooth, has never been polluted by the footprints of a slave! As in the case of Somerset, the decree is based on a fiction, contradicted by previous precedents, and by all history. Hildreth, who, we understand, is the author of that infamous libel, "The White Slave," which, in part, is the authority on which "Blackwood" bases his slanderous attacks upon the South, and the institutions generally of this country, in his "History of the United States," acknowledges that by the "Fundamentals," or "Body of Liberties" of Massachusetts, "express sanction is given to the slave trade; and the practice of holding negroes and Indians in perpetual bondage, anticipated, by many years, anything of the sort to be found in the statutes of Virginia or Maryland." (1 vol. 278, 282). It was not only authorized in 1650, both in Massachusetts and Connecticut, but "blood-hounds" were used to catch runaways. (372, 393.) By custom or by statute, slavery existed, as a fact, in every Anglo-American colony at the commencement of our revolutionary struggle, and is particularly recognized by the Legislature of Massachusetts. (3 Hildreth, 391.) Was universally considered as property by the English in 1662. (1 Hild., 518, 523.) New-York adopted the "Fundamentals" of Massachusetts, and fugitive servants were ordered to be caught and returned, and all servants taken up without a pass. (Ibid. 48.) In 1712, the Quakers of Pennsylvania refused to set their slaves free in their

Assembly, because "neither just nor convenient." (2 Hild., 419.) Yet knowing all this, this author is now an abolitionist, bitterly malignant towards the South, but who would, no doubt, rejoice in the possession of slaves, but for the very reason which he assigns for their abandonment in New-England: "The soil and climate of New-England made slaves of little value there, except as domestic servants." (2 vol. 419.) Adam Smith, before our revolution, said, Pennsylvania would never have given them up if they had been of any value there. "The first fugitive slave bill, of 1792, was drafted," (says the "Boston Post)," "by George Cabot, of Massachusetts, in November, and it was passed by the Senate on the 18th of January, unanimously, fourteen from free, and thirteen from slave States voting for it. The House Committee, Theodore Sedgwick and Sheerjushub Bourne, of Mass., and Alexander White, of Va., reported the bill to the body, by which it was passed, on the 5th of February, without discussion. Eight free States were represented by 31 votes, six slave States by 24 votes—free State majority 7. The bill received 48 yeas to 7 nays. Massachusetts gave 6 yeas to 1 nay. This record shows that the free States passed the first fugitive bill." In the last May number of the "North British," in the article on "Wellington in the Peninsula," we have it on British authority, that it was not uncommon to sentence soldiers, British soldiers, to *two thousand* lashes, and though "*seven* hundred were considered the maximum of endurance," we are told that two "*almost escaped*" for stealing sheep, who were sentenced to receive *twelve hundred* lashes each! We feel satisfied that no three men could be found in South Carolina who would be so brutal as to condemn a poor black slave to receive so cruel a punishment for any crime, much less for larceny.

There are many subjects which the Review has treated with similar ability to that displayed in the articles we have alluded to, but which our space will not allow us to allude to specifically. There are but two subjects touched upon where we cannot fully agree with the editor. The first is in relation to the Monroe doctrine, and the other to Political Economy. It seems rather Quixotic in the United States to say, *a priori*, that we have the right "to forbid the conquest or colonization of any part of Central America or Mexico by a monarchical government, for the purpose of establishing the rule of non-intervention, and the doctrine of State Rights, for the benefit of all the North American Republics." We confess ourselves, however unfashionable it may seem to some, staunch supporters of Washington's doctrine of non-intervention, and nothing yet has occurred to our mind that weakens the force and wisdom of his advice to avoid all entangling alliances or interferences with foreign powers. Intervention to prevent intervention seems a queer exception, indeed, and though it might very well suit the purposes of Mr. Kossuth, is scarcely reconcilable with American good sense. The Bulwer and Clayton Treaty has already furnished us with an example of the folly of attempting to vary from the rule.

There are but two circumstances, in our opinion, which could justify the United States in saying to any European power—"You shall neither conquer nor colonize any part of Mexico or Central America."

1st. The right of property in the soil.

2d. Or *imminent* peril threatened by such conquest or colonization.

It must also be that sort of *imminent* peril which endangers the existence, or very seriously affects the welfare of the State. Less causes will not justify or excuse, but such a degree of peril will authorize and justify interference in all such cases, no matter where they occur, whether upon the continent or upon some island, and such interference would be nowise at variance with the advice of Washington. We presume that it will scarcely be contended that we have the exclusive right to make conquests, or to poach on these grounds because of a continuity of land; for in that case the right would extend to all South America, and would exclude all islands, no matter how contiguous or commanding. We can readily conceive that a case might occur where the danger of conquests or colonization might be much more *imminent* and *eminent* to us than any colony or conquest that could be made of Central America or most part of Mexico.

If we do not mean conquests, and we know of no such design in the country, shall we, in any degree, serve State Rights, or constitutional, representative, democratic institutions, such as ours, by maintaining the present "*Republics*" of Mexico or Central America? The very idea is a farce: Napoleon's, Santa Anna's, Iturbide's, Carrera's democracy!!

But the Monroe doctrine! What right had Mr. Monroe to prescribe any new doctrine to the democratic party? Is he or any other man to be placed alongside of Washington, and to supersede his advice as to our foreign policy? If new principles are to be budded or grafted on our old stock of democratic principles, let the bud or graft be taken from some sounder stock than the Monroe administration. As with General Taylor, the country was then all "republicans, all federalists." That was the prevalent doctrine of that administration; and while it propagated more wild and extravagant notions of a splendid and magnificent government than any other republican administration, it so confounded the principles of the two parties, as to have rendered it since often difficult to say which held the restrictions of the Constitution or the rights of the States in least respect, the federalists or republicans, or since, the whigs or democrats. We need only refer to the reports of the Secretary of War and of the Treasury Department of that period for proofs of what we have said, wherein the most extravagant expenditures for internal improvements, fortifications, etc., etc., by the general government and the protective policy, are recommended as the policy of the administration. Need we refer to the most extraordinary consolidation speech of Mr. Calhoun, on his report and introduction of the United States Bank charter, giving a bonus of a million and a half to internal improvements, designed for the West! We do not, therefore, like to have precedents incautiously drawn from that period, any more than we should consent to have Jackson's Proclamation referred to as the text of democracy.

Much nonsense has been said of our manifest destiny. Every folly is to be covered by this manifest destiny. The thief thinks it his destiny when he picks your pocket or steals your horse. Others may think it his destiny to be hung. Our true destiny, we cannot doubt, is to do justice to others, and to see that justice is done to us. Our institutions suit us, and no foreign power has the right to interfere with them, or do anything that will endanger them; nor have we any right to interfere with the institutions of other people, or to attempt to force ours upon them, any more than they have to force theirs upon us. Propagandism is not the business of our sort of constitutional, representative democracy. Let us leave that to socialists, communists, abolitionists, and all other such mad men, and bad men; it is enough that we are satisfied with our system. We no more believe that it would suit all other people, than that it would answer for the government of a drove of hogs or mules. Let the emperors, czars and sultans, these political pig-drivers, alone. They have their flock, and their mission to fill, and we have ours. It is enough that we have opened our doors to every one who may choose to abandon the mule-drivers, and place themselves under the protection of our institutions. The contemptible figure which our country exhibited in the conduct of its leading executive officers, and even in the Congress of the United States, in the matter of that theatrical, melodramatic, political juggler, Kossuth, should satisfy us, as folly enough for one century.

This brings us to the last subject touched upon by the Review, about which we shall make any remarks. We mean the unmeasured and unjust onslaught made upon political economy, in the two articles on "British Political Economy" in the February and March numbers, and on "Political Economy" in the last June number. We cannot conceive how a science, or a doctrine, if you prefer so to call it, that has done so much for the human race, by removing unjust and foolish legislation, could have excited the contempt or dislike of intelligent and liberal persons, such as the editor of the United States' Review has proved himself to be on all other subjects discussed.

"Men fancy," says the Review, "themselves competent to govern great nations, because they have learned from Political Economy those simple and obvious truths, which before the advent of that so-called science, were never thought necessary to be embodied in books, because they were already sufficiently obvious to the common sense and experience of mankind." Now we think we have seen many men who fancied themselves competent to govern nations, who never knew one word of Political Economy, and very little of anything else. These intuitive geniuses are generally those who possess this prurient fancy. Dr. Lieber has very well said, "if political economy is not science, it is knowledge." And although its great "truths appear simple and obvious," it is far from being true, that before its advent, these simple truths "were already sufficiently obvious to the common sense and experience of mankind;" for, until it had embodied these simple truths in books, pamphlets and journals, and repeated them over and over, they were never brought to the consideration of the common sense of any people, or made a popular question, until the dispute arose in 1830, which commenced in 1828, between South Carolina and the general government. At that time, with all his good common sense, General Jackson thought protection good for us all. We speak from personal knowledge. Soon after this, Mr. Cobden, traveling in the United States, is said to have had his attention excited on this subject, and that led to the Corn Law League. Free Trade was first taught and impressed upon the minds of the people of South Carolina by Dr. Thomas Cooper and the late Mr. Stephen Elliott. They gave the first impetus to the popular move, and this was because they had paid particular attention to the study of Political Economy. So, as to the distinguished services of Mr. Lee, of Boston, in the cause of Free Trade, when that cause was odious, we were no doubt as much indebted to his studies on this subject as to his common sense.

What were these simple truths, that should have been so obvious, but which nearly required a revolution or a civil war in the United States, and afterwards in Great Britain, before they could be seen or acknowledged by the rulers of the earth, with all that "experience and common sense" so much relied upon by the reviewer? So far from "furnishing governments (as the reviewer most surprisingly asserts) with plausible pretexts for meddling with the proper business of individuals, directing their private pursuits, interfering with their labor, and enabling them adroitly to get as much of its fruits as possible," Political Economy, on the contrary, and strange enough, first saw and taught the wisdom of the rule *laisser faire*, by which cognomen the free trade doctrines of political economists are now known. From the time of Adam Smith, the founder of the present orthodox school of Political Economy, to the present day, its leading authors have unanimously protested, again and again, against the mischievous meddling of government in the business of individuals, or interfering with their labor, adjusting their profits, or adroitly bestowing the fruits of one to the profits of another class. Whose arguments exploded the protective system, a system maintained by the common sense and experience of many centuries? Did common sense or political economy first teach the doctrine of free trade? Which "seduced governments into fostering one branch of industry in preference to another?" If common sense first discovered the true light, she was very prudent in suppressing her knowledge, and her unpopular opinions, and did precious little for the advancement of truth and justice, though they stood before her for so long a time, clothed in such simple and obvious weeds. We repeat—Political Economy has exploded the Protective System; exploded irredeemable paper moneys; removed the navigation laws; exploded those bugbears—the balance of trade, the drain of specie, national independence of your shoemaker; weakened monopolies, and repealed the Corn Laws.

Has not Political Economy been arguing for years with common sense, to prove that that "labor which brings in no profit is unproductive," and that it should not be favored at the expense of others? Has it not labored with the same opponent, assisted by self-interest, to prove "that the foundation of all barter is mutual profit or convenience;" and that as a man's "own labor is the source of his private means, so the combined labor of a whole people constitutes the wealth of a nation?" It may be very true that "the honest laborer, plodding in his daily round, little dreams that he is working out problems for political economists, and laying the foundation of an abstruse science;" and yet we know that these daily ploddings are the sources of all knowledge, and often form the basis of that science, which, while it alleviates the condition and elevates the fortunes of mankind, shows the vast superiority of the scientific man in the use of these daily ploddings, over him that is so boastful of, or so much boasted for, his experience and common sense. Men often forget that science is but the superior use of common sense and experience. Every ass considers his knowledge as the peculiar essence of common sense and the fruits of experience. We can scarcely believe our reviewer to have been in earnest, when he ridicules Political Economy for seeking facts, and using statistics in favor of her arguments. And the "numbering of horses, sheep, cows, oxen and donkeys" is considered as an instance where political economy improperly "meddles with every man's business." This is really fooling, unbecoming the character of the work. We should have been glad if the editor had informed us which governments they were, to which he alludes, that had suffered under the fostering influence of this science, or that government where "the people have always been the worse off the more the great dogmas of this science are brought to bear on them."

By the influence of this science, we have already said that the Corn Laws of Great Britain have been repealed, her navigation laws removed, the system of reciprocity introduced, and we trust to be greatly extended. By the influence of this science, governments have been taught the advantage of free exchange, of the benefit of low duties both to revenue and to the prosperity of the country, and of the great advantage of competition and division of labor in all the affairs of life. It has taught that government should only exact from the pockets of the people what is necessary to its proper and economical administration, and to their safety. It has taught the injustice of class legislation. This is really the first time that we have ever seen it suggested that to Political Economy is due "the cumbrous, unwieldy, complicated machine, laden with all sorts of legislative trumpery, rolling along like the car of Juggernaut, and crushing every body in its way," called the British Government.

But that paper money is the "legitimate progeny" of Political Economy, is an assertion only to be equalled by that of Mr. Clay in one of his speeches, wherein he declares that Free Trade and the British Colonial System were exactly the same thing! Surely our friend, the editor, has read Adam Smith, Say, Ricardo, Storck, Bastiat, and all others most distinguished as writers on Political Economy. How, then, could he be so unjust towards a set of writers who have done much for the advancement of the human race? Can it be that the reading of our friend on this subject has been unfortunately confined to the works of Henry Carey, who, while a professed free trader, is the most indefatigable advocate of protection in the United States, and whose extraordinary inconsistencies and false deductions, while they mortify and disappoint his friends here, are the wonder and confusion of his foreign admirers (see Dictionnaire de L'Economie Politique, V.—H. Carey); and who, among other things, has discovered that wonderful theory that is to settle all the unsettled points of Political Economy—the theory that in the pursuit of wealth, the producer and consumer must hunt in couples, like hounds in a chace? Or, has the writer found the "roundabout, rigmarole obscurities" from that distinguished source, "The Public Economy of the United States," by Calvin Colton, of that branch of the school of political economy known as "Asinine?"

The reviewer, however, has pointed out one source of offence on the part of Political Economy and of political economists. McCulloch, in his account of the British Empire, in his Geographical Dictionary, has, like all loyal Englishmen, made rather light of the burden of their heavy taxes, and has said, by way of apology for them, that its pressure was not to be estimated by the actual amount of the sum taken from the people and lodged in the coffers of the treasury, but, by the mode in which taxes are imposed, and the ability of the people to pay them; and that, instead of supposing that the influence of taxation in Great Britain had been hostile to the increase of public opulence and private comfort, he inclined to think it had a precisely opposite effect. But Mr. McCulloch goes on to say, that oppressive taxes would have had an opposite effect, and, instead of producing new displays of industry and economy, would have produced only despair and national impoverishment. The increased taxation, he supposed, had been met with increased exertion and economy, which in fact led to the production of a far greater amount of wealth than was required to meet the increased demands of the revenue collectors. Now, in this there might have been a little boasting of John Bull; but Political Economy has no more to answer for it than it has to answer for Adam Smith's apology for the navigation laws. It is enough that Political Economy has, from its very origin, denounced the evil of high taxes, direct or indirect, as it has also denounced the navigation laws, and all other restrictive measures. And even this Mr. McCulloch, who has unfortunately drawn upon Political Economy the denunciations and ridicule of the reviewer, has in the very page, and in the remarks referred to, stated the great evil of oppressive taxation; besides, on the specific subject of taxation, he has written the best work we have, and one which should be in the hands of every statesman, to show him how, while he collects sufficient revenue for the real necessities of government, he should inflict the least possible evil on the people. Neither Mr. McCulloch nor any other respectable writer on Political Economy has ever considered taxation a blessing. "Taxation no tyranny," has been the Tory protectionist's doctrine from the days of Dr. Johnson to the present time. Mr. McCulloch has informed us himself (Com. Dict. v., Nav. Laws) that it was not to the navigation laws, but to the abuse of the funding system and the excess of taxation, that the decline of the commercial greatness and maritime power of Holland was really owing.

To conclude, we have been so much pleased with the political and moral articles in the United States Review, that we really felt regret when we read these assaults upon our favorite study; and we should be sorry if the pleasure of reading the Review should again be impaired by similar unjust and unwise reflections upon a branch of knowledge so akin to true democracy, and which, when properly understood, should give offence to no one but the grasping monopolist, who would fatten upon the plunder of his fellow-citizens, and who feels his hold weakened by the arguments of this science. We freely give up Mr. Carey and the Rev. Mr. Colton to the vengeance of the reviewer, and he may take Mr. Frederick List along with them; but we beseech him to respect that science which has taught us the benefits of free trade, and the mischievous injustice of government meddling with the private affairs of its citizens. Should our advice be contemned, and the course of the Review continued on this subject, we shall expect next to see the "American System" attributed to Political Economy.

Art. IV.—THE PLAGUE IN THE SOUTH-WEST.

THE GREAT YELLOW FEVER EPIDEMIC IN 1853.

FRIGHTFUL SCENES IN NEW-ORLEANS—PROGRESS OF THE EPIDEMIC IN THE CITY AND THROUGHOUT THE INTERIOR TOWNS—STATISTICS OF DEATHS—THE HOWARD SOCIETY—THE CHARITY HOSPITAL, ETC., ETC.

[This paper will not be too long to be read with deep interest everywhere. There was a similar one prepared in 1833 by Dr. Halphen, giving an account ot the cholera epidemic in New-Orleans, which destroyed one-sixth of the population.]

Thus far the present year, while it has been one of great general prosperity, has also been one, in the history of our country, of unprecedented calamity. Frightful steamboat disasters disfigure the records of the first months;[*] these are followed by the most awful railroad accidents, in rapid succession; and lastly, the great Southern metropolis of our country is invaded by one of the most destructive epidemics that has ever visited the shores of the New World. This awful visitation, whose energies are still (1st November) vigorously in operation on our southern borders, decimating the population whenever it appears, forms a new era in the medical history of this country. That the pages of this Review may serve for future reference in regard to the great Yellow Fever Epidemic of 1853, we propose to collect and digest, in as elaborate a form as our limits will admit, all of the principal facts and events regarding it that have fallen under our notice.

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[*] We may also add disasters at sea along our coasts. An abstract made from the marine records of the Boston papers for a period of eighteen months, shows the great extent of loss of life and property by shipwreck:

Total losses, 579 ships, 108 barks, 144 brigs, 327 schooners. Never heard from, 59 ships, 5 barks, 14 brigs, 40 schooners. Put into port in distress, 333 ships, 106 barks, 96 brigs, 136 schooners. Wrecks passed, 102 ships, 18 barks, 26 brigs, 58 schooners. Of the total losses, there were stranded, 379; abandoned, 173; burned, 17. There is a total loss for the given period every 22 hours; one stranded every 33 hours; one abandoned every 75 hours; one never heard from every 10 days. This latter implies a serious loss of life, as do more or less those abandoned; and some of them were doubtless caused by the unseaworthy condition they were in when they left port.

Having been almost a constant resident of New-Orleans since the spring of 1842, and having seen the frightful ravages of the yellow fever during the epidemic of 1847, when we ourselves were prostrated by it, we write upon a subject with which we have had some practical acquaintance. From our own observations—which are also confirmed by those of others—we venture the opinion that the yellow fever is a disease that makes its appearance in New-Orleans *annually*, and that there has not been a summer, during the last ten years, in which that dreadful disease has not visited that city. Indeed, Dr. J. C. Simonds, long a resident of New-Orleans, and one of the ablest physicians of that city, has given the yellow fever statistics of the Charity Hospital, published by Dr. E. D. Fenner, in the first volume of his *Southern Medical Reports*, from which it appears that the yellow fever has made its appearance in New-Orleans every year from 1822 to 1849 inclusive. Many have attempted to show, that yellow fever is only a disease of occasional occurrence in New-Orleans. For the benefit of those who entertain this opinion, we give the following table of Dr. Simonds, whose figures are derived from the annual reports of the books of the Charity Hospital, and from the journals of the Legislature of Louisiana:

TABLE SHOWING THE NUMBER OF CASES OF YELLOW FEVER, AND DEATHS FROM THAT DISEASE, IN THE CHARITY HOSPITAL OF NEW-ORLEANS, FROM 1822 to 1849 INCLUSIVE:

Year.	Total Cases.	Deaths.	Year.	Total Cases.	Deaths.
1822†	337	239	1836	6	5
1823	1	1	1837†	998	442
1824	167	108	1838	22	417
1825	99	49	1839†	1,086	452
1826	24	5	1840	3	3
1827	372	109	1841†	1,114	594
1828	290	130	1842†	425	211
1829	436	215	1843†	1,086	487
1830	256	117	1844†	169	83
1831	3	2	1845	1	—
1832†	26	18	1846	146	96
1833†	422	210	1847†	2,479	895
1834†	150	95	1848†	1,226	420
1835†	505	284	1849	1,055	545
Total	3,087	2,082		9.826	4,250
				3,087	2,082
Total from 1822 to 1849				12,913	6,332

The above table, it must be recollected, is only for the Charity Hospital. How many died of yellow fever out of the hospital, it would

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The years marked (†) were those in which the yellow fever was epidemic.

be impossible to say; but the number was probably considerable. In epidemic years the number of yellow fever cases in the hospital is very small, compared to the whole in the city.* We continue the above table, bringing it down to the present date:—

Total Cases.	Deaths.	Total Cases.	Deaths.
1850	107	1852	289†
1851	1	1853	

The returns for 1850, 1851 and 1852, are incomplete; we give them as far as our statistics will admit. We have thus established that the yellow fever is an annual visitor of New-Orleans. That it originates there we are fully of the opinion, no instance of its having ever been imported being as yet well proved. If it is imported, it must be imported every year. A writer in the *New-Orleans Commercial Bulletin*, of August 23d, 1853, attempts to show that the disease was imported. He says:—

> On the arrival of the bark *Mary H. Kemball* at this port, a few days previous to the breaking out of the yellow fever, from Rio Janeiro, via Jamaica, having sprung aleak, and put in for repairs, I called on board to inquire about a part of the cargo. She was loaded with coffee, etc. I saw the captain who had just recovered from a spell of sickness. On inquiry, I found he had been laid up with the yellow fever. His wife, daughter and niece had all died with the same disease at Jamaica. He also informed me that he had lost by the yellow fever, at Rio and since that, from on board his vessel, twenty-eight persons in all. The bark landed opposite the Triangle Buildings, and discharged her cargo. The yellow fever commenced in that vicinity."

We consider this as hardly worthy of notice; first, because the writer is anonymous; second, he does not state when the vessel arrived, nor does he give the name of the captain; third, we have examined the arrivals at New-Orleans for May, June, July and August, and do not find any such vessel published; fourth, we find published in New-Orleans papers of the 14th of May, the arrival of the "bark *A. H. Kimball*, Draper, 12 days from *Philadelphia*, to master, first district." We presume the writer wrote from hearsay, and confounded this vessel with one from Brazil.

But, it cannot be possible that this or any other vessel brought the disease to New-Orleans, from either Brazil or Jamaica, unless such vessel arrived before the 6th of May, for it is asserted positively, by Dr. M. M. Dowler, an eminent physician of New-Orleans, and one of the oldest of that city, that two fatal cases of yellow fever had occurred as early as the 6th of May. From this date we shall attempt to trace the history of this last appalling visitation of the yellow fever, drawing our facts and incidents chiefly from the New-Orleans journals, believing that the statements recorded by them, there on the spot, are quite as reliable as any accounts of this great epidemic that can be found, if not more so. It is due to the public to say, that while the

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* For the last nine weeks of the year.

† In 1850 the Board of Health reported 107 cases of yellow fever; while the number in the Charity Hospital was only 9.—*Fenner's Report*, vol. 2, 1850, pp. 67. 80.

New-Orleans journals are edited with as much ability as any in the Union; they are always very shy about making publications regarding the existence of yellow fever in that city. It is not until the very last moment, when there is a general outburst of alarm, and when deaths from yellow fever are staring them full in the face, that they are disposed to publish any thing on the subject. It is often the case, indeed, as we observed for many years, that the first tidings of yellow fever being in New-Orleans, come back to the city through the medium of the country papers; nor has this year proved an exception to this remark. New-Orleans being an entirely commercial city, the love of money and self-interest prevail there as much as in other commercial communities; and it is a standing maxim in the commercial world, that nothing must be said that might injure trade. Hence it is that the yellow fever has often prevailed in New-Orleans to an alarming extent, before the journals were willing to admit that there was any cause for alarm.

The first public report of yellow fever this year, in New-Orleans, was that of the Board of Health, for the week ending the 28th of May, one death having occurred during the week. Still, the journals maintained the most profound silence on the subject; the interests of trade, we presume, requiring it. On the 18th of June the Board of Health reported seven deaths from yellow fever during the past week, and cases every week since the 28th of May. The people began to be alarmed, but the journals were silent. On the 23d of June the *Picayune* contained the following:

THE YELLOW FEVER ALARM.

This note is from a person who can be relied on as good authority.

Messrs. Editors:—Madam Rumor has given rise to the fancied existence of yellow fever in this city to a very great extent. It is admitted that it has occurred in the city to the enormous extent of about four cases, a thing not unusual in any year past. But that it exists in a form or to an extent to produce alarm, except amongst old women, is most positively denied by all the most eminent physicians in the city. For a long time past there have been weekly reports of the number of deaths published under the sanction of a *Board of Health*. Will the proper officers please inform the public who compose the "Board of Health?" Does such a body exist? Perhaps his Honor the Mayor can throw some light upon this subject. Unfortunately, much alarm has been produced by the unauthorized report of the "Board of Health," and many of our citizens have been induced to leave the city sooner than convenient, in order to avoid a danger which does not exist.

OBSERVER.

This is in the usual tone of such notices, which appear annually at New-Orleans, when alarm begins to exist, and the people begin to fly from the city.

On the 25th of June the Board of Health reported nine deaths from yellow fever during the past week; the journals still remaining silent on the subject, being for the most part absorbed in the discussion of the great negro insurrection plot, that was then just discovered, and in the still greater humbug, the monster steam balloon of M. Petin, who announced that he would positively make an ascension on the 5th of

June. The affair was a perfect failure, and M. Petin has not been heard of since. On the second of July the Board of Health reported twenty-five deaths from yellow fever during the past week, and still the journals were silent. Occasional notices began now to appear in the journals, regarding the heavy rains and the filthy condition of the streets. The gutters were exhaling their "filthy compounds of abominable smells," as if to provoke a paragraph in the papers, and the journalists were praying that the rains might spare their olfactories from such odors.

> "Could we only calculate upon as much rain once or twice every week of the summer," says the *Delta*, we "might hope to be spared those pests which, if they are not regarded, are certainly to a greater or lesser extent fostered by the foul and nauseous steams arising from our street gutters, and other depositories of decayed animal and vegetable matter."

How little did they think what was coming The rains were abundant, flooding, but they did not spare them.

The Board of Health continued their labors, on the 9th of July reporting fifty-nine deaths from yellow fever during the past week; and the journals began to manifest some alarm. The *Crescent*, always slow to move on the subject, makes the following bitter complaint:

> "For quite a number of days, if not weeks past, we have been greeted with every possible indication of a sickly season—fostered, if not directly produced, by the negligence, ignorance and laziness of the present city officials. The streets have looked and smelt epidemical for a fortnight, and carrion and carcasses and festering nastiness of every description has been allowed to remain undisturbed and constantly to augment. But the Lord, not willing that we should suffer through the folly of such a set of dunderheads as are over us—even though they were selected by ourselves—yesterday afternoon sent a rain that overflowed the gutters, inundated the streets, and for a time made the highways almost navigable. The nuisances are once more removed, and we are left devoutly thankful for this Providential interference."

The most bitter complaints were made regarding the filthiness of the streets; and contractors for cleaning them were arraigned and heavily fined for the non-performance of their duty.* On the 8th of July the *Crescent* publishes the report of the Board of Health for the 2d, but without comment. The other journals did not notice it. On the same day the *Delta* gives the report of the Charity Hospital, from which it appeared that of sixty-two deaths during the week, about one half were from yellow fever.

The weather at this time, in New-Orleans, was extraordinary. The *N. O. Commercial Bulletin* thus notices it:

> "The weather is the strangest ever known in this city, we are firmly convinced. It is regular April weather, almost in the middle of July! Sunshine and showers divide the day, from sunrise to sunset. Such unnatural weather as this cannot be healthy. We would advise our readers to be very careful of themselves. In fact, too much care cannot be exercised. By all means avoid the hot, piercing rays of the sun as much as possible, and be prudent and moderate in diet and all things else. We would say, keep *cool*, were such a thing possible."

During the epidemic in New-Orleans, a most strange and absurd theory was advanced by an intelligent member of the medical profession, Dr. H. McFarlane, who, as it would seem, was supported by many others. It deserves notice as a curiosity in the history of medicine, and as one of the remarkable inventions to which the epidemic of 1853 gave rise. It was this: That filth of every description, no matter how putrid and offensive, could neither create nor aggravate fever of any description; but, on the contrary, that it was absolutely a retard, of yellow fever, rather than a creator of it.* Like every absurd theory or creed, this one found supporters, especially in New-Orleans, where filth is so common, and so offensive. Theory suited admirably the city authorities, as it enabled them to excuse, "on theory," their gross neglect of all those sanitary regulations and provisions which reason and common sense so clearly indicate. It was ridiculed throughout the world, out of New-Orleans, and its originator pronounced to be either a fool who deserved pity, or a knave who deserved the severest punishment. On the subject of this ridiculous theory, so contrary to all facts, and so murderous in its consequences, the *New-Orleans Commercial Bulletin*, of the 12th of July, 1853, one of the ablest journals of that city, contained a well-written editorial article, which so well exposes the sanitary views of the authorities of New-Orleans, that we copy it entire, to serve as a reference for some future writer of the medical history of New-Orleans. The *Bulletin* says:

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*Delta, of July 7th.

"We have never before the present time, or in any other place than this, heard the theory seriously broached, that sanitary regulations were superfluous and unnecessary auxiliaries to health. To a plain common-sense man, one who has been well bred, and used to cleanly habits, it must seem strange that there are intelligent, decent people, who stoutly maintain that dirt and filth, garbage and offal, have no effect either in creating or aggravating disease. We know that there are eccentric people of this way of thinking among us; and the worst of it is, that they are those who, possessing for the nonce place and power, and supported by interested and devoted adherents, by obstinately adhering to their crude, preconceived opinions, are able to do a power of mischief. The accumulation of filth and putrescent matter in our streets, we are told, is in no wise prejudicial to health; nay more, we are positively assured, that dirty streets are the most healthful localities; and we have been informed by those whose authority it would be scandalous to question, that in the history of the epidemics of past years, the most filthy streets were the most exempt from disease. We have no doubt that the authorities of Constantinople, Smyrna, Beyrout, and the miserably filthy cities of the East generally, entertain the very same theory; but as those cities are densely populated, an annual decimation of their inhabitants may be a public benefit.

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* In a letter addressed to A. D. Crossman, Mayor of the City of New-Orleans, by Dr. McFarlane, through the columns of the *Daily Delta* of the 28th of July, he announces his strange theory as follows:

"A vast number of physicians, falling into the popular current of opinion, have adopted the belief that filth and offal accumulating in our city are the causes of yellow fever.

"Now, sir, permit me, with all becoming modesty, to say that I do not believe one word of this. That so far from believing that the filth, offal and impurities around and about us have anything to do with the formation of what physicians designate an epidemic constitution of the atmosphere, I believe that these very impurities, (for the removal of which the present Board of Health has been principally instituted, and which a few extra scavenger carts would do quite as well, and certainly much to our pecuniary advantage;) I say, sir, that so far from believing that the filth and impurities in our streets, yards and suburbs, have anything to do with the creation of a yellow fever atmosphere, I believe that, to a certain extent, they are calculated to retard its formation."

There is a peculiar and significant sensitiveness manifested in certain quarters whenever any allusion is made to the condition of our streets: and why, we cannot comprehend. In all populous cities in Europe, as well as in this country, as the summer and autumnal months are approaching, the hygeinic condition of the public is a matter of special consideration. We notice at the advent of summer in our Southern Atlantic cities, the appointment by the local authorities, of Boards of Health, and specific directions given to the inhabitants for the management of their yards and premises. In the large northern cities extra appropriations are made, and additional care and attention given, as summer advances, to the preservation of health. In Europe, the sanitary condition of cities and towns is a subject of primary importance. In France, it precedes all other questions of public policy—employing the talent and skill of their most eminent savans. In England, the attention of Parliament is constantly and unremittingly directed to this great feature in municipal government; and an effective and organized system of street cleansing is, with the National Legislature, the object of cardinal consideration. We have now a report before us from the General Board of Health; and that the value of its opinion may be duly appreciated, we would state, that the members of this Board are appointed directly by the Government, for their professional qualifications and experience. They are medical men who have seen service in Egypt, the Levant ports, Gibraltar, South America, and the West India colonies, where tropical diseases are most prevalent. This Board, in their report to Parliament, submit, as a universally received postulate—that no refuse or vegetable matter, whether solid or fluid, should be allowed to remain beneath or within habitations, or upon or about the surface near habitations, sufficiently long to undergo the process of decomposition. They further say, that experience has amply shown that a large part of the low health and the sickness of the towns is occasioned by delay in the removal of such refuse by regular and efficient cleansing.

If these views and principles are recognized to be correct and tenable in every other part of the world, why do they not apply in this meridian, where we are periodically subject to diseases of malignant type? Upon what precedent, authority, principle of reasoning, or common sense, will men, who fortuitously are so situated that weight is given to their opinions, dare to promulge a doctrine so abhorrent to common understanding, so odious and repulsive to every human instinct, that dirty streets, and the noxious effluvia emanating from the accumulation of refuse matter, are not detrimental to health. We venture to say, that in no other civilized city in the world, has such an absurd and outrageous theory even been advanced to justify or extenuate municipal dereliction.

But, in reply to these strictures, we will be told, as we have been, that we are mistaken in our premises; that our streets are not dirty; that New-Orleans is at this moment the cleanest city in the Union. This is adding insult to injury. The frequent showers we have lately experienced, have in a degree removed the surface filth; had it not been for this *outside* assistance, our condition would be deplorable indeed. But we say, and we make the statement from extended and purposed observation, and challenge contradiction, that the streets, alleys, premises and yards of this city and its habitations, are most outrageously filthy; and if, as some contend, this condition of things is conducive to health, it is at least offensive to sight and smell, and anything else but comfortable and agreeable. If our statement is controverted, we will not point to the localities in the neighborhood of St. Mary's Market, the Water Works, and the back streets generally, as examples—

> but we will direct the attention of the authorities to the condition of a short street in the most populous part of the city, running to the river, and not three hundred yards from it. We will summon to the stand the occupants of every tenement in Lafayette street. and particularly in that part of the street between Levee and Commerce streets, and ask them for their experience during the last week. The gutters on both sides of this thoroughfare have presented a dense mass of fœtid matter, exhaling a stench almost intolerable; and, as if the usual and habitual accumulations were not sufficient, the contents of a privy were emptied in one of the gutters a day or two ago, and so inured were the denizens of the streets to villanous smells, that the outrage was considered hardly worthy of notice.
>
> The City Council meets to-night. Will they defer such trivial and ephemeral matters as the salaries of officers, questions of order, and laying out and paving new streets, to the great and all-important consideration of Health? This, and this alone, at this time, if they are true and honest public servants, and faithful to their trusts, should occupy their attention. The course they have been pursuing with their delinquent subordinates, is stupidly absurd. Instead of fining their contractors, which is no remedy for a crying evil, they should hurl them out of office. Summary execution should follow conviction.
>
> New-Orleans has been exempt from disease since 1847; it can continue so, if those to whom the municipal government is entrusted do their duty. Upon them repose the responsibility, and a great responsibility it is. The public will hold them to it, and require from them a strict accountability."

It may be said, that the city authorities being democratic, for the most part, and the Bulletin a whig journal, the representations of the latter should be received with some allowance; but we have too much reason to believe that the Bulletin has not at all misrepresented the case. So far as regards the filthiness of the city, we can say from personal observation, as late as the 26th of May, that its statements are strictly true. As these statements regarding the filth of the city have been questioned, we shall cite another journal, the *Orleanian*. It says:

> "We cannot with any show of justice, overlook the neglect, or fail to condemn the apathy that prevails amongst the salaried servants of the public—the Deputy Street Commissioners and contractors. Who can point out an instance of filthy yards or pestiferous back premises having been scrutinized by the corporate employees? Nay, there are some dwellings in the Third District, and putrid holes adjoining, which reek with the vilest odors, and taint the very atmosphere—every breeze from which is laden with miasma, with sickness and death. Talk of the foul condition of the streets, and reprobate the parties who are paid for their amelioration! Why, they are not a tithe as dangerous or deleterious as the private receptacles to which we allude, where cleanliness is scarcely heeded, and many, very many, wallcw, almost literally, as hogs, and in the mire. Then, their immediate dwellings are kept so filthy, and in their persons and garb they are so remiss, that we are only astonished that each dwelling has not its patient, and that yellow fever is not generally an epidemic.
>
> "In the other districts, there is room, no doubt, for similar complaints, and grounds for well-founded censure. What matters it if a family are cautious and circumspect—are neat and orderly, in all that appertains to their premises, or domestic duties, if adjoining them, or in their direct vicinity, resides an indolent and disorderly horde, who forget the principal and absolutely required uses to which water should be applied in a climate such as ours, and go unwashed for days, their raiment like stable ordure, actually giving forth smoke. or steam—while around them, in their feculent shanties, all is disor-

der, and every article, poor though it may be, disgustingly dirty. To guard against evils such as these, regular examinations should be made, not merely of yards and noisome outhouses, but of crowded rooms and back kitchens, and reeking hovels; which positions engender more certain disease, than undrained swamps or uncleaned thoroughfares. Yet, maugre this fact, who, at any time, witnesses the visitations of commissioner or deputies, to the places glanced at, and which require zealous watchfulness?"

This was written on the 13th of July, at which time the same journal is the first to acknowledge, though reluctantly, the extensive prevalence of yellow fever in the city.

"There is no disguising it, says the *Orleanian*, nor endeavoring longer to keep secret the advent of our olden enemy—the saffron-visaged gentleman, ycelpt "Yellow Jack!" He is among us, and performing his work vigorously. The unacclimated are being rapidly stricken down, and will continue to be, as long as the present disagreeable, and, without question, unhealthy weather continues. Many of them court his approach by their careless habits and imprudent conduct—and, unfortunately for themselves, when seized with the primal symptoms of yellow fever, imagine that they have contracted slight colds, which time will eradicate, and to remove which, there is no occasion for medicine or the calling in of the leech. If the disease increases, probably they may have recourse to purgatives but naught more, and when it has made good its entry into the very marrow of their bones, and to dislodge it is impracticable, a physician is summoned; but it is too late!"

In the same article, the editor endeavors to palliate as much as possible.

"This is what is generally phrased," says he, "the commencement of the sickly season of the year, yet we know of no prevalent diseases, nor do epidemics exist among us. The deaths are fewer in number than in any other city of similar population, in the Union. That there may be—that there are, occasional cases of yellow fever occurring, we make no question—it would be almost miraculous if there were not—as many persons, new to our climate, linger here through the summer, or arrive in our port almost daily. They are generally too, of the poorer or working class, whose employments necessarily compel them to labor in the sun, and be exposed to its scorching rays. Again, they are less cautious and careful of themselves, than are those habituated to our summers, while they drink of cheap-priced and poisonously adulterated liquors, with a freedom and frequency which would startle a Father Matthewite. Is it to be wondered at, that several of these reckless and indifferent individuals are stricken down with disease, and conveyed to our vast hospital? No! the wonder would be if they were not!"

Two days after this attempt to ignore the existence of any "prevalent diseases" in the city, the Board of Health reported 204 deaths from yellow fever for the week ending July 16th! All the other city p pers, so far as we have been able to examine them, maintained the most profound silence on the subject. The alarm, however, was general, and the citizens were rushing from the city by thousands. Those who could not get away complained bitterly of the apathy of the Common Council, regarding the filthy state of the city, and communications on the subject were refused publication by some of the journals. The *Bee* even expressed some doubts whether filth had anything to do with the prevailing sickness.*

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* Daily Delta, July 13.

The time had now arrived for action on the part of that noble institution, the *Howard Association*. On the morning of the 13th of July, there appeared in the papers the following notice:

> "HOWARD ASSOCIATION.
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> "A special meeting of the members of the above Association will take place on Thursday evening next, at 7 o'clock, at the office of the undersigned.
>
> "Punctual attendance of every member is requested, as business of importance will be brought before the association. D. I. RICARDO, *Sec'y.*"

The meeting took place pursuant to notice, on the 14th. The following is an extract from the proceedings of the meeting, as published in the *Picayune* of the 15th. The other papers did not publish it until some days afterwards:

> "Whereas, it has come to the knowledge of this Association that there is now prevailing an extraordinary amount of sickness, for this season of the year, particularly among the poorer classes of our community;
>
> "And whereas, there does not now exist a Board of Health whose special duty, under present circumstances, would be (we believe) to advise the inhabitants of this city of the necessity of applying promptly for medical aid, as soon as they feel indisposed;
>
> "And whereas, the members of this Association, in the discharge of their duties, have found that in a majority of the cases taken in hand by them, the patients had been suffering from the ordinary febrile symptoms, such as headache, pains in the back, nausea, extreme lassitude, etc., sometimes for two or three days, without medical aid, medicines, or proper nursing, thereby improperly jeoparding their chances of recovery—
>
> "*It is hereby Resolved,* That this Association do now regularly organize, as has been its practice, whenever an unusual amount of sickness of any kind has prevailed in this city.
>
> "*And be it further Resolved,* That the Secretary be directed to give notice in the public prints, in the manner heretofore generally adopted by this body, that all sick persons in indigent circumstances, will be taken charge of by the Association, on application to either the directors or members.
>
> "*And be it further Resolved,* That this Association, after due consultation with a number of the Medical Faculty of this city, recommends to the community at large not to neglect the ordinary domestic remedies, such as mustard foot-baths, warm drinks, etc., as soon as they shall feel out of their ordinary state of health, or suffer from those pains which are common to all fevers.
>
> "*And be it further Resolved,* That this Association, through their Secretary, do petition the Common Council, either to designate Druggists and Apothecaries, by whom all orders signed by any of the directors or members of this Association, or by any Physician practicing in behalf of the same, shall be executed at the expense of the city, or to allow the Association to select their own Apothecaries, their bills to be paid out of the city treasury, as has been the custom heretofore under similar emergencies,
>
> "*And be it further Resolved,* That the foregoing preamble and resolutions be published in the daily papers. "D. I. RICARDO,
>
> "*Secretary Howard Association.*"

In accordance with their 4th resolution, the Association immediately petitioned the Common Council for assistance in relieving the sick, but at first received but little encouragement. This did not dishearten the members of the Association. They resolved to go on with their work of love and mercy, and accordingly the following Relief Members were appointed. Their names should be written in letters of gold:

"V. Boullemet, President, 12 Dryades and 6 Magazine streets; G. W. Shaw, First Vice President, Camp, opposite Asylum, and 38 Poydras street; C. H. Nobles, Second Vice President, 9 New Basin; G. Kurscheedt, Treasurer, 18 Bourbon and 48 Camp streets; D. I. Ricardo, Secretary, 40 Camp and Terpsichore streets; J. O. Pierson, corner of Camp and Orange streets; W. L. Giles, corner of Camp and Orange streets; L. C. Dillard, 28 Camp and 85 Bacchus streets; E. L. Nimmo, 93 Canal and 93 Camp streets; W. Emmerson, 8 Bacchus street; J. Bensadon, at Touro's Infirmary; J. E. Caldwell, 27 Bank Place and Delord, near Camp street; W. H. Hammer, 13 St. Charles street; W. H. Palfrey, 27 Camp and 125 Julia streets, W. L. Robinson, 16 Bienville street; P. Conniffe, 87 Customhouse street; B. O'Connell, 8 Conti street; C. W. Whitall. Esplanade street, opposite the Mint; J. W. Vandergriff, Architect Buildings; J. J. Browne, First and Chesnut streets; J. Willis, corner of Josephine and Chesnut streets; J. Livingston, 40 Camp, and St. Louis, near Royal street; J. O. Harris, Constance, near Melecerte street; D. T. Donovan, Market street, between Pacanier and Annunciation.

"Persons requiring relief will please apply to any of the above members. It is also requested that those applying for relief will make their applications to the member residing nearest the patients; also at the Touro Infirmary, corner of Geiennie and Levee streets. "D. I. Ricardo,

"*Secretary*, 40 Camp st."

We shall have more to say of the Howard Association hereafter.

The weather continued to be very extraordinary.

"We should like some of the learned in meteorology [says the *Delta*, in its usual humorous style,] to inform us of the cause, source and origin of the remarkable weather which has visited our city for the last eight or ten days. The almanac assures us that it is about the middle of July, and there is a general theory that July is in the middle of the summer; but here we have this long-established theory completely upset. By some interruption of the machinery of the world, or other casualty, the course of the weather seems to have been seriously deranged and revolutionized. We had a dry, warm winter, and now a cold, wet mid-summer comes in to vary the character of our season, and July takes the place of January. For several days past our people have been driven out of thin clothes into woollen, and from the outside of sheets, in between blankets. Some of the thin blooded are to-day lighting up fires, and windows are down everywhere.

"Thus far, there has not been one really good summer-day in New-Orleans. For ten days past, it has been constantly raining, and the sun has had quite a sinecure of it, dozing away behind the thick clouds, like a red-nosed old gentleman after dinner, with a dark bandanna over his face to keep off the flies. The appellation of "Sunny South" is entirely inapplicable to New-Orleans."

The same journal says nothing whatever, at the time, of the prevalence of yellow fever in the city, though people were then dying there of it at the rate of 200 a week.

On the 18th of July, the *N. O. Commercial Bulletin* published the report of the Charity Hospital for the week ending July 16, from which it appears, that during the week there had been 86 cases of yellow fever in the hospital. On the 17th, it contained 145 cases; and during the 17th and 18th, it reported 51 deaths from yellow fever.

The general mortality throughout the city, from yellow fever, must have been, at the time, very great, as the cases in the hospital are always very few when compared with those out of it, as we have shown above.

The disease had now become so prevalent and so fatal, that the journals began to discover that there was no use in attempting to remain any longer silent on the subject. The *Daily Delta* of the 19th of July accordingly announces, by way of apology, for introducing into its columns so disagreeable a subject, that, "in consequence of the expressed wish of many of our friends, to learn the daily condition of the Charity Hospital, we will issue a daily bulletin of the state of that institution during the sickly season of the year—commencing on Saturday, and continuing till further notice."*

Two days after the Louisiana *Courier* takes up the subject, for the first time, we believe, in the following modest tone:

> "We are not disposed to create or to circulate alarms about yellow fever in New-Orleans, nor are we willing to conceal or disguise the real state of the public health. The number of deaths in the city during the week ending on Saturday last, was 304, of which 204 were caused by yellow fever, and 105 of these occurred in the Charity Hospital; 204 per week is upwards of 29 per day. We are informed on good authority that the number of cases of the same disease has increased considerably since Saturday.
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> "The disease prevails in the Fourth District, or that part of the city better known formerly as Lafayette, than in any other locality; indeed, we have been assured by a respectable physician that there it has attained to the character of a slight epidemic.
>
> "On the other hand, it must be admitted that the attacks of the malady are confined exclusively to strangers, and among them to persons who are imprudent and irregular in taking food and drink; who are lodged in unhealthy places—that is, whose bed-rooms are exposed to the wet weather, or to the night air; who suffer their perspiration to be stopped suddenly by a draft of cool wind.
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> "There is no danger even to strangers, who adopt proper precautions in their diet, lodging, and exercise in the open air; above all, to those who, without being disturbed by panic alarms, meet the approaches of the disease with calmness, and as soon as the symptoms make their appearance, apply the remedies prescribed by a skilful physician. We have known the yellow fever prove fatal in two or three days; but these cases occurred only when the premonitory symptoms had warned the patients some time previously to their being prostrated on their beds, when no preventive measures had been taken, and when the disease was unskilfully treated. We have also known many attacks of yellow fever, apparently very severe, effectually repelled by simple remedies in two or three days.

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* It is the custom in New-Orleans to distribute every summer, to the dogs running at large in the streets, *poisoned sausages*; and it is remarkable that the order to do this was issued this year, by the authorities, just after the epidemic began, and when the air of the city was already tainted with the stench of dead dogs, cats, and horses lying in the lots and gutters in every part of the city. The *Orleanian* of July 23d, alluding to this, says: "A more injudicious period for the poisoning of dogs could not possibly have been chosen than the present, and the practice should be stayed. Dead dogs, bloated to an unusual size, and roasting in the sun, can be perceived on our streets, or float in dozens on the river, into some nook or eddy, where they putrify and rot. The authorities evidently did not know what they were about."

"The yellow fever, in short, is a troublesome and dangerous disorder to strangers who take no pains to protect themselves from its assaults by judicious precautions, and who are unskilfully treated when it is upon them; but sleep in dry, airy lodgings, not exposed to the cold winds, which now begin to prevail from midnight till daylight, eat wholesome food, drink wholesome beverages, and not too much of either, and then you may safely bid defiance to the yellow fever. If it does invade your system, provided that you attend to it when the first symptom occurs, and call in the assistance of an able and experienced physician, you will incur no more risk, and endure no more pain, than you have done a hundred times from colds and catarrhs in the place where you were born.

"In New-Orleans the yellow fever is not what it was twenty or twenty-five years ago. It is neither so malignant, nor does it so easily become epidemical. Various causes for this amelioration are assigned, which it is unnecessary to particularize in this place. Its nature, also, in all its forms and phases, is much better understood by the medical faculty. New remedies and modes of treatment are in vogue, and are found efficacious in cases which in former years would have been looked upon as desperate and incurable.

"Keep your minds quiet, the pores of the skin open, avoid exposure to the night air, and to the heat of the sun by day, avoid unwholesome food, take meat and drink in moderate quantities, sleep in dry airy rooms, and your safety is guaranteed. Above all, keep your imaginations from being frightened. This sort of fright is sufficient in itself to bring on any species of disorder, and occasions many a death which, without it, would not take place."

Undoubtedly fear, from its debilitating effects, is a powerful predisposing cause of disease; but it is quite certain that, in the late epidemic in New-Orleans, the yellow fever acted quite independently of fear; for it swept off infants in vast numbers, who were too young to know what fear is.

On the 21st of July the Charity Hospital was crowded to excess with patients, the floors, even, being covered with the sick. The new admissions were from sixty to one hundred per day. The sick were almost constantly being brought in, and the dead carried out. The dead-house teemed with frightful corpses, on which preyed the fearless and devoted student of pathological anatomy, with a gusto that made the uninitiated shudder. The scalpel was busy at work, and the note-book of the ardent votary of science was stained with the bloody fingers of the recorder.

Complaints of the filthy condition of the city, particularly in the Fourth District, where the yellow fever began and raged most violently, continued to be made. A writer in the *Picayune*, describing his perambulations, says:

"Our nasal organs had been so often excited by the 'particular qualities of bodies,' which lie in abundance in the gutters and streets all over our spacious city, that we began to fancy our notion of them, so far as knowledge could be communicated by this species of sensation, must be quite perfect, as well as very extensive.

* * * * * * * *

"We, in an evil hour, happened to come upon St. Mary's Market, and passed along South Market street to Tchoupitoulas. What with the stench of the gutters in South Market street, and the stench of the market, and all the other various and numerous stenches and offensive odors that in an avalanche of smells charged up our nostrils, we think we shall not soon forget the *sensation* produced."

The same journal, in reference to the Third District, says:

> "We may judge from the reports made by the police, who say that the stench arising from the carcasses of dead animals, along the whole water line of the district, is 'most intolerable, and not to be endured.' Surely, there is no necessity for these things, and the numerous complaints from all parts of the city call for prompt action on the part of the authorities."

Gormley's Basin is spoken of as a "pestilential muck-and-mire pool of dead animals and filth of every kind, doing much to crowd the graveyards and hospitals."

On the 23d of July, the Board of Health announced 204 deaths from yellow fever for the week, or 29 a day. The alarm was now intense, and the newspapers began to contain comments on the dreadful epidemic that had at last aroused them. The Common Council that had been so incessantly importuned for active measures to prevent the spread of the disease, but without listening to the complaints, now declared that it was too late to do anything. They gave, it is true, $2,000 to the Howard Association, but did nothing more. They were more intent on political questions, than on the fearful epidemic which was cutting down the citizens around them. One of the journals, the *Orleanian*, complaining of the inertness of the aldermen, says:

> "Water and sewerage, three months since, would have stayed the epidemic now upon us, but the bills for relief, earnestly backed by one and all, who have interest in the best welfare of the city, were ignored in disputes about the Delta and Pandelly, idle questions of order, and silly disputes with the city attorneys.
>
> "In the meantime the epidemic, so confidently predicted, is upon us, with fearful horrors. The reports of deaths in the Charity Hospital are earlier in season, larger in numbers, and less controllable by medical skill, than in our experience, we have known before, and we count for several years back. What do our city fathers now, to repair their deplorable neglect, their reprehensible omissions of duty? This! they endorse the advertisement of Mr. D. J. Ricardo, on behalf of the Howard Society. An association of what powers, what resources, save the piddling sum of $2,000, donated by the council, and the good name of Daniel J. Ricardo.
>
> "What does this shew but a desire on the part of the Council to evade their duties and to shift their responsibilities? What, but to delegate their high obligations to Mr. Ricardo and his associates? True, if it must be that others should take their bishopric, perhaps they could not put it into better hands. But, alas, what sad dereliction! They seem not to know that a sin of omission is a sin of commission. But they tell us that 'the evil is upon us; that the time for need of preventive has passed. The horse is stolen, and to what end now to shut the stable door?' And is it so, that there is but one horse in this, our Augean stable? are not new victims every day presenting themselves; uncared for, unprovided for, and even, as it were, tacitly invited to the shambles.
>
> "'It is too late,' says the Council, 'for a Board of Health!' Why, the greater the evil, the more want of remedy! Alas! the Council endorse the advertisement of Mr. Daniel Ricardo, giving private move to panic and gloom, and to throw off from their own shoulders responsibilities which have been proclaimed in sounding phrase of mere democratic manifesto, donate a few thousand dollars to such a purpose. God help us! Give us a Board of Health! Give us the man of science who shall speak as one having autho-

rity, and whose words have weight in stilling excited nerves. There is at this time, and now, now is the time, when a man of true instincts for the safety of the people, with a large confidence in his study, and in his practice, may devote himself wisely to the ends we ask. If our Council would heal their own bickerings,—if they would look less to the prosperity of the city touching the election of a coroner, or a recorder, or a sheriff, in November, and attend to matters of July and August,—their honors would be more like to be made standing, and less like, as from present appearance threaten, to be dragged in the dirt of Girod street.

"The present Board of Assistant Aldermen have duties to perform. The yellow fever is in their district; at their doors; on their landings. The mischief is spreading daily. It walks at midnight, as at noon-day. It draggles its dirty skirts in byways at all hours, like as a trull does in Perdido street, and no one stands before to stay it! We want a Board of Health; we want physicians and druggists to be designated by the Council, to whom any responsible man may apply for relief at the cost of all. No private purse can stand the need. We want that boarding officers of ships arriving here, should be nominated—men of medical standing. We want science and experience, and good will, and means for good should be extended us."

Nor was the *Orleanian* alone in its too just strictures upon the "City Fathers;" many of whom, as if to complete their short-comings, and hide themselves from the frowns of their dying constituents, absolutely *fled the city.* They had refused to listen to the entreaties of the citizens for aid, until they began to fear for their own lives, and then they abandoned all and fled!

Wishing to give as much in detail as possible all the occurrences connected with the epidemic, which we know will be read with intentness, we here add the comments of the New Orleans *Commercial Bulletin* on the extraordinary exodus of the "City Fathers," and on their entire proceedings, in relation to the epidemic:

"Some six weeks ago, the mayor sent a message to the City Council, urging upon them the expediency, nay, the absolute necessity of constituting a Board of Health. The subject was occasionally discussed, and postponed from time to time, until finally the Board of Aldermen have adjourned to October, without discharging a duty recommended to them by the mayor, and imperatively demanded by the wants and necessities of the people."

This adjournment till the first of October was to enable them to escape to the Northern cities, and to other places of supposed safety. Those who fled to the watering-places along the shores of the Gulf of Mexico, were not permitted to remain there long, for the epidemic pursued them, as will be seen in the sequel.

The *Bulletin* continues:

"The Council have in another instance shown a disregard of public sentiment, in their treatment of the Howard Association. The character, design and offices of this noble association are well known to our citizens, and we are all proud of it. The gentlemen that compose this society are active, energetic men, who in times of severe sickness make it their special duty to visit the sick and destitute, minister to their wants, and take care of them, until they recover. No more commendable institution ever existed; none more deserving the fostering care and encouragement of the city authorities, and the individual aid and countenance of our citizens.

"On Tuesday last, a resolution passed the Council, appropriating $1,000 for medicines, that may be wanted and ordered for the Howard Association. This is a mere fraction of the probable cost of the medicine that may be required.

"Alderman Converse offered a resolution to give this benevolent association a *carte blanche* to order medicine at the expense of the city, the bills to be paid under the approval of the Finance Committee of that body. It was most unceremoniously disposed of. The same liberal-minded alderman subsequently offered a resolution to place $5,000 at the disposal of the association. Alderman Converse thought this, doubtless, a small sum, under the circumstances, but as much as the Council would stand. He found it more, as it was promptly voted down. On motion of Alderman Irwin it was reconsidered, and the sum of $2,500 substituted. In this shape it passed the Board of Aldermen, and was sent to the Assistants for concurrence. The Board of Assistants first laid it on the table, but afterwards called it up, when the vote stood 13 for and 4 against it; and the act of consolidation requiring 14 yeas, it was lost.

"Our council can give their thousands for a ceremonial to the dead, or any other purpose that makes a parade or show, but not even the paltry sum of $2,500 to save the living from the disastrous effects of an epidemic of their own creation, and for which the public hold them responsible.

"A word or two more on the subject of this charitable association, that is refused this contemptible pittance of $2,500. It was established many years ago, and is constituted a chartered body by our legislature. Its charter is perpetual, and it requires the members, when the Board of Health declares the existence of an epidemic, to devote their time to the indigent sick. There being no Board of Health, they have taken upon themselves the responsibility of going to work.

"They organized for this purpose last Thursday night, and at once commenced duty, and have, in the six days intervening, taken charge of over 200 cases. The prospect is, that the cases to be committed to their charge will multiply rapidly before the season is over.

"In 1847 they had 1,252 cases, of which only 9 one-eighth per cent. died. The average cost to them was $10 per patient. The allowance by the Council of $1,000, estimating their number of patients at two thousand, would be the enormous sum of fifty cents each.

"In former epidemics the Council of the old second municipality always paid all their bills for medicine, and made a liberal appropriation besides.

"This association has about twenty-five working members, who give their time and attention to the sick *gratuitously*. Some twelve or fifteen physicians have volunteered their services gratuitously.

"They meet to-night (July 21) for a more thorough organization, and henceforth will meet every evening, and publish their reports. The council having refused to aid their finances, they will be compelled to appeal to our citizens for aid, and who will refuse to give to such a laudable charity. They have a small fund on hand, which is fast being exhausted. More must be had to sustain them in their good work.

"The Howard Association, from present indications, will require $25,000 more money than they now have, to carry out their good intentions.

"There will be an unenviable and fearful responsibility resting somewhere, if the sickness with which we are at present afflicted continues with the same features of mortality that are now presented. Doctors may term it what they please, ship fever, or yellow fever, or both combined, all admit its malignant type. What, in this state of things, is the obvious duty of those who are clothed with authority, who can best discharge their duty to the satisfaction of their constituents, and to the acquittance of their own consciences? Is it not to promote the health, to supervise closely and strictly the sanitary condition of the city, and thus protect and save the lives of our citizens? Health at all times, and in all places, is the greatest of all earthly blessings: here in New-Orleans we need it more than any where else. Give us continued health, and the destiny of New-Orleans to be one of the first cities on this continent, is certain to be fulfilled. Without it, with rail-roads radiating from every street, we can be nothing more than what we are now, subservient and tributary to strangers and their money.

"Can the Aldermen of this city put their hands on their hearts and say that in this particular they have done their duty? That to the best of their ability they have endeavored, by wholesome, sanitary regulations, to promote the health of the city? And we put the question to them directly, can they justify themselves, at this particular exigency, for adjourning their Board to October? For two months and a half, and at a time when we must reasonably expect no inconsiderable degree of sickness, we are to be without a municipal government; for by the new charter the mayor is rendered almost powerless. Is this exercising the paternal care we should look for from our city fathers?

"While we are thus deserted by those to whom we should look for protection, the Howard Association will be an important auxiliary—they will constitute a *quasi* board of health, and we may be assured they will perform the duty of such a body—honestly, faithfully and promptly. They will require a large amount of money to carry out their good intentions effectively, and our citizens must bear them up, and aid them with a liberal hand."

There is, perhaps, not another case on record of the authorities of a modern city refusing to adopt sanitary regulations for the preservation of the lives of the citizens under their care, and abandoning them to fly from a pestilence.

We have examined carefully the proceedings of the Board of Aldermen on the night of their adjournment until the epidemic would be probably ended, as they were reported in the daily *Delta*, and we find the statements of the *Bulletin* correct, though it did not tell all of the truth.* It might have said that the Aldermen also rejected the offer of two respectable physicians to attend the sick during the epidemic; and that a resolution adopted by the Board of Assistant Aldermen, "ordering the fines collected by the Recorder of the Fourth District, up to the first day of November next, to be applied to the relief of the sick and the destitute," etc., was, on motion, rejected.

The clamors of the people regarding the filthy state of the city led to the impeachment of the Street Commissioner, by the Assistant Aldermen, who, as it afterwards appeared, acted very unjustly in so doing, as they had not furnished the Commissioner with the necessary means for keeping the city clean. The impeachment was, therefore, withdrawn. The whole thing was a mere *ruse* to deceive the people, and make them believe that the Aldermen had done their duty.

On the 23d of July the Board of Health reported, for the week, 617 deaths, of which 429 were of yellow fever, or 61 per day, the deaths from yellow fever having more than doubled since the previous week.

The Howard Association, now deserted by the city authorities, were obliged to call on the citizens for private aid. The ravages of the pestilence were now entirely too extensive for the members of the association, and personal aid was needed. This was readily obtained. A large number of the most respectable physicians volunteered their services, resolved to risk their lives for the aid of the sick and dying. The Secretary of the Howard Association had the pleasure of issuing the following:—

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* The *Assistant Aldermen* did not adjourn over to October, until the 27th of July, when the resolution was carried by a vote of 10 yeas to 8 nays. It is due to some of these to say, that they staid through the epidemic and lent their aid.

"New-Orleans, July 22d, 1853.

"The following practising physicians have kindly offered their gratuitous services in attending patients under the charge of the Association:

"*First District*,—Dr. N. Smith, corner of Annunciation and Edward sts.; Dr. Benedict, Magazine, near Bartholomew street; Dr. Tubuell, Carondelet, near St. Joseph; Dr. Bensadon, at Touro Infirmary; Dr. Ball, corner of Hercules and Thalia streets; Dr. Baldwin, 407 Magazine street; Dr. McKelvey, 12 Carondelet street; Dr. G. W. Cross, 19 Nayades street; Dr. Mathieu, Nayades street, between Euterpe and Polymnia streets; Dr. G. W. Dirmeyer, 11 New Basin; Dr. McFarlane, corner of Circus and Poydras streets; Dr. Dalton, St. Charles street, over Tattersalls; Dr. Jacobson, 1 Union st.; Dr. Goring, Diamond's Row; Dr. Kisffy, 8 Philippa street; Dr. A. N. Bayler, Tchoupitoulas, near Orange street.

"*Second District*,—Dr. R. Hagan, corner of Bourbon and Bienville streets; Dr. Cracou, 48 Dauphin street; Dr. R. W. Bertrand, 244 Basin street.

"*Third District*,—Dr. Kovaleski, 13 Hospital street; Dr. Browning, Moreau street, below the Railroad; Dr Iken, Royal, near Peace street,

"*Fourth District*,—Dr. M. M. Dowler, Rousseau, near Saraparu street; Dr. Schubert, corner of Rousseau and Second streets; Dr. A. Dedrich, Magazine, near St. Andrew street; Dr. P. Yusei, Live Oak, near Josephine st.

The following names were afterwards added on the 26th of July:—

"Dr. Lenton, 127 Canal street; Dr. Robert Malcolmson, 146 Circus street; Dr. Josiah Hale, Girod, near St. Charles street; Dr. A. Hart, St. Joseph, near Camp street; Dr. Hire, 137 Annunciation street; Dr. N. G. Friend, 90 Common street; Dr. C. H. Porter, 12 Robinson street; Dr. A. Donnand, 31 Dryadès and 18 Carondelet streets; Dr. James T. Seguin, 94 Poydras st.; Dr. Lightcap, 130 Poydras street.

"*Second District*,—Dr. Kratz, corner of Conti and Marais streets; Dr. Lucien Henly, 94 Canal street.

"*Third District*,—Dr. J. A. Cantrelle, 19 Congress street.

"*Fourth District*,—Dr. Uren. Rousseau, near City Hall; Dr. J. K. Quilling, corner of First and Apollo streets; Dr. Tchender, corner of Magazine and Seventh streets.

"The Medical Faculty generally, of this city, are respectfully requested to permit their names to be added to the above list, which they can do by applying to either of the members, or the secretary.

"D. I. Ricardo, *Secretary*."

Nearly all these gentlemen are personally known to us, and we take the greatest pleasure in recording their names. The general who slays his thousands on the field of battle, is ever after lauded to the skies for what are called his "noble acts;" but the kind-hearted and benevolent physician, who labors night and day to *save* lives, is too often passed by in silence. Such is the world.

The following gentlemen of the highest respectability volunteered to collect funds:

First District—J. O. Harris, G. W. Shaw, H. W. Palfrey, J. E. Caldwell.
Second District—G. Kursheedt, W. L. Robinson, J. Livingston.
Third District—C. W. Whitall, J. M. Vandergriff.
Fourth District—J. J. Browne, J. Willis.

The New Orleans *Commercial Bulletin* thus speaks of them:

> "They are all gentlemen of high character and standing; and we hope their philanthropic appeals will be nobly responded to. The cause of suffering humanity must not be neglected; and when those who brave the pestilence at mid-day and at midnight ask aid to enable them to prosecute their humane objects, it should not, it *must not*, be refused. The city government has refused the association the aid it imperatively requires. Therefore the citizens must furnish it. Let no man, no woman, be wanting, for, in an hour that human foresight cannot provide against, *they* may be helpless and suffering. Throw your bread upon the waters; it may return to you fourfold before the lapse of many days."

The report of the Charity Hospital for the week ending July 23d, showed 190 deaths from yellow fever. If so many were in the Hospital, what must have been the number in the city at large! Strange as it may appear, many at this time in New-Orleans denied there was any epidemic there. The country papers accused the city Journals of concealing the truth in regard to the mortality; and the latter complained that accounts were much exaggerated. Even the *Orleanian* affected to be in doubt whether there was an epidemic, or not, although the deaths from yellow fever alone were more than 60 per day.[*] It writes as follows, on the 24th of July:—

> "There are very many of our old residents who insist that the yellow fever, as it now prevails, is not at all epidemic, but only confined to certain localities, near where the British ship Evangeline, (the iron ship from Jamaica) was moored about a month since; and that prompt and resolute measures of a *cordon sanitaire* will confine it to this locality, and greatly relieve the present sufferers, and stay and soothe all further apprehension.
>
> "At all events, we need something *official*—something upon which we may count. We have the highest regard for the Howard Association, but if they be measured abroad by the petty sums the Council has intrusted them with, they are insignificant indeed. If there be an epidemic, let us know it, not from idle street rumor, but from a source entitled to credit. Above all, let not our City Council delegate their powers. They have been elected to do duties which they have assumed to do; now that they are more arduous than they thought, the better virtue to hold on to them. The Council is to be convened for an early hour Monday or Tuesday morning. Let it not adjourn without *doing*."

On the 26th of July a new Board of Health was organized, of which Mayor Crossman was the president, and Dr. A. F. Axon the permanent secretary. Dr. Hestar was elected Port Physician. Besides these gentlemen, the Board consisted of 15 health wardens, appointed from the different wards in the city. Besides this Board of Health, the City Council which met on the 25th of July, (a called meeting) established a quarantine, at Slaughter-house Point, where all foreign vessels were to be boarded by a physician, whose fee was fixed at $5. No vessel was allowed to approach the city, without a permit from the boarding physician. The Board of Health were also empowered to draw on the city treasury to the extent of $10,000, to enable them to execute the powers conferred upon them.

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[*] These were only the deaths reported, but many well-informed persons declared the interments to be not less than 100 or 120 per day. Such is the statement of *Le Courrier de la Louisiane*:—" La fièvre jaune fait de tels ravages que nous ne saurions trop engager ceux qui n'ont pas fui le fleau à prendre toutes les précautions pour s'en mettre à l'abri. Le nombre de décès est considérable, et des gens bien informés prétendent que les inhumations ne sont pas moins de 100 à 120 par vingt-quatre heures."

The establishment of a quarantine at this time, when the city was already scourged with a frightful pestilence, was ridiculous in the extreme. The city fathers of New Orleans were never overstocked with wisdom. A quarantine then, was like shutting the stable door after the horse was stolen. After refusing, all summer, to do anything to avert an epidemic, it was worse than folly to establish a quarantine after the city was suffering all the horrors of a plague; it was only adding insult to injury, and wasting the public money—it was giving the Board of Health $10,000 to prevent the yellow fever coming to New-Orleans after it was already there. It looked very much like a pretext for plundering the city treasury. We are not surprised that the *Louisiana Courier* exclaimed, "In the name of wonder, what are we come to!" The $10,000 appropriated was more especially for cleaning the streets; but it was then too late; for the filth had already done its work. It had brought a frightful plague upon the city, which no human power could check. The $10,000 should have gone to the Howard Association; but they were not allowed to use a dollar of it.*

At this stage of the epidemic the most frightful scenes of sickness and death began to be exhibited, even in the most favored parts of the city. Whole families were swept away, and almost every house furnished tenants for the cemeteries. The journals, as usual, said as little as possible of the work of death that was going on in all parts of the city; but they would occasionally break out with an allusion to the subject, and a notice of some particular case. The *Orleanian* of the 28th of July, in the third district, speaking of the untiring labors of the Howard Association, observes:—

"We had no conception that this section of the city was so severely visited by the pestilence of our climate, as it is, until we examined, last evening, the lengthened list of Mr. J. M. Vandergriff. Within the past three days, sixty-seven cases have been reported to them, of which twenty-three were announced yesterday morning. How many cases they may have within the twenty-four hours, from yesterday morning, we cannot surmise; but apprehend, from the unhealthy state of the weather, that there will be a large increase.

"Mr. Vandergriff informs us that he has not, since 1832, witnessed such an amount of suffering—such sickness and distress—whole families stricken and decimated! Of one family, two daughters died in the Charity Hospital, and the father and two sons are now dying, or perhaps dead. One poor woman they discovered ill in a wheelbarrow, and the Rev. Mr. Whitall trundled the wheelbarrow along, until they procured a place of shelter. Yet it is thought she will recover. The details Mr. V. gave us were harrowing; still it is satisfactory, in the midst of this depression, to know that the Howard Association design to establish an infirmary in the third district. On the benefit of such an institute, we need not expatiate. It has been manifested here before."

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* New-Orleans Bulletin, July 27.

The grave-yards were now so crowded with corpses, waiting to be buried, that loud complaints were uttered because there were not more grave-diggers provided. The heavy and daily rains, too, rendered the streets leading to some of the cemeteries almost impassable by the hearses that were constantly moving along them. But the loudest complaints, says the *Orleanian*, of the 28th of July, are of the "inadequate force employed in preparing graves for the reception of the defunct, and the great delay occasioned thereby. Five times the number now engaged, we are informed by an individual who visited the cemetery yesterday, would be required, so numerous are the interments, and so necessary is it that the friends of the deceased should leave, with dispatch, so disagreeable and noisome a position. As matters are now arranged at St. Patrick's, observed our informant, (an Irishman,) people will have to make *their own graves.* Whether he meant that the departed would have to arise from their coffined slumbers and fashion their tenements of clay, or that the living, taking time by the forelock, should dig their own graves, in advance of being summoned by grim death, we know not. But this we do know, that in a graveyard, to which, we believe, a majority of all those who die of yellow fever are borne, there ought, assuredly, to be a sufficient number engaged to bury the dead! The friends of the latter cannot be expected to do it, or aid in it; yet, it would seem, from the information which we have obtained, that unless they perform it, or assist in doing so, they will have to remain, under sunshine and rain, as the case may be, for a time, not to be patiently endured. Will the trustees see to this, and not have all censure rest upon the Rev. Mr. Mullon?"

Everything now, in New-Orleans, presented a most gloomy and deserted appearance: all business had ceased, and most of the places of trade were closed. The very extraordinary weather still continued. "Will any one tell us," says the *Delta* of the 29th of July, "what time of the year it is? It certainly is not July. Last night it was cold enough for blankets. A sharp north wind blew all night. Bad time for patients! So much greater the need for care and attention."

On the 28th of July 100 persons died of the yellow fever. The mortality was now greater than at any time during the epidemic of 1847, when 77 was the greatest number of deaths from yellow fever on any one day. The deaths from yellow fever, in the Charity Hospital, were, at this period of the epidemic, from 25 to 30 per day. Many impositions were practised upon the hospital to save expense. Many went there for medical aid who were able to pay; and it was a practice too common, among a certain class, to send patients there, while in a dying condition, to escape the expenses of their burial.

On the 30th of July, the Board of Health reported for the week 723 deaths, of which 555 were from yellow fever. This was at the rate of 79 per day, from yellow fever alone.

On the 6th of August, the Board of Health made the following report for the week:

	Total.	Yellow Fever.
Sunday, July 31	157	137
Monday, August 1	142	106
Tuesday, .. 2	135	115
Wednesday, .. 3	146	124
Thursday, .. 4	166	143
Friday, .. 5	150	128
Saturday, .. 6	238	194
Total	1,134	947

This shows an increase of 392 over those of the previous week.

The Charity Hospital reports for the two weeks, compared, present the following table:

Week ending at midnight on—	Admissions.	Deaths.	Yellow Fever.
Friday, August 5	547	318	307
Friday, July 29	570	218	207

Showing an increase for the week ending at midnight, on Friday, August 5, of 100 deaths, and 100 by yellow fever over the week ending at midnight on Friday, the 29th of July.

The scenes in the Charity Hospital must have been awful in the extreme, such as none but the stoutest hearts could witness. The following is the report for one week:

	Admissions.	Deaths.	Yellow Fever.
Saturday, July 30	81	60	60
Sunday, .. 31	59	37	37
Monday, Aug. 1	86	38	36
Tuesday, .. 2	91	41	35
Wednesday, 3	71	49	49
Thursday, .. 4	60	40	40
Friday, .. 5	99	53	50
Total	547	318	307

From this it will be seen that the average number admitted per day was 78, or 1 for every half hour; while the average number of deaths was 45 per day, or nearly 2 every hour! There was an awful malignancy attending the disease, such as none of the oldest physicians had ever witnessed in yellow fever. There was superadded to the usual characteristics of yellow fever a rapid congestion, which baffled all treatment.

Great as the mortality was at this time, it was believed by many in New-Orleans, who had ample means of observation, that the number of deaths reported was quite too small. The *Louisiana Courier*, of August 9, one of the most reliable journals of New-Orleans, expressed its doubts on the subject as follows:

> "We have for some days entertained doubts whether the lists of deaths, as published in the newspapers, can be relied upon as accurate. They are made up, we believe, from reports of sextons or grave-diggers at the several burying-grounds, and it depends upon the correctness of these reports whether the published list shall be received as accurate or not. We are far from meaning to say or to insinuate that those reports of the sextons and grave-diggers are deficient or inaccurate by design. But everybody knows that the burials reported at several of the cemeteries are so numerous that it must be difficult for any ono man, whose attention is continually occupied

in the fearful business of inspecting the interments that are made at different spots of the same graveyard at the same moment, to be correct in making out his lists. This difficulty will occur to every one who reflects for half a minute on the subject. It is stated, and the statement has been current for some days past, that dead bodies in considerable numbers are left to lie unburied on the surface of the earth in some of the graveyards, for want of hands to dig graves in which to bury them. Are these unburied bodies reported in the lists of interments, or are they not?"

Horrible as have been the events of the epidemic, which we have thus far recorded, we have still more horrible ones to relate. The *Daily Delta*, of the 8th of August, under the head of "*Horrible Spectacle!*" relates dreadful circumstances in the condition of the cemetery of the Fourth District. This is the place, says the *Daily Delta*, in which the dead bodies are buried by the corporation. That journal then proceeds, as follows:

"The carts of the Street Commissioner, or the contractors, (we do not know which,) go around daily, and collecting a load of victims of the epidemic, who have been previously nailed up in corporation coffins, take them to the cemetery in the rear of the Fourth District, where graves are dug to the depth of two feet, or eighteen inches, wherein the coffins are deposited, and the dirt thrown upon them. We understand that six men have been kept busy digging these graves for the week past. The number of corpses increasing, these laborers found their work too severe, and either some of them left, or they were unable to supply the demand for graves on Friday last, when the number carried to this cemetery alone was seventy-one. The coffins were deposited on the ground by the cartmen, who left them. There forty of them remained until yesterday morning, unburied. The action of the sun, through the frail inclosure, produced a rapid decomposition of the bodies, several of which swelled so as to burst the coffins. Attracted by the unusually violent and offensive effluvia, several citizens in the neighborhood visited the spot, when the horrible sight was presented of forty coffins unburied, through which the ghastly, reeking bodies of as many victims of the pestilence might be seen, whilst the odor was almost overpowering. The Street Commissioner was informed of this disgusting condition of affairs, and that officer manifested his willingness to repair this horrible neglect, but stated that it was very difficult to obtain laborers for this duty. The Mayor was also informed of the facts, and his honor directed his attention to the subject, but stated at the same time that it did not fall within the line of his duty. It is quite as doubtful whether it is the duty of the Street Commissioner. Such is the beautiful confusion of our laws and ordinances, the effect of the tampering and changing to which they are continually subjected! Our city government, on occasions of public emergency and danger, is a mere farce."

In the evening edition of the same journal, it adds the following:

"We spoke this morning of the fact of a great number of bodies lying in the Fourth District Cemetery unburied, but we greatly underrated the amount. Last night, the number uninterred was seventy-eight, although men had been working all day. Mr. Kursheedt, the Chairman of the Committee on Cemeteries, on the part of the Board of Health, used almost superhuman exertions to get the bodies placed under ground; but it was impossible to obtain men to work, though Mr. Kursheedt offered $5 per hour for laborers. In St. Patrick's Cemetery, there are many bodies in the same condition, on account of scruples about burying bodies in unconsecrated ground.

"We should like to know if there be another city government in the world, besides that of New-Orleans, which would not, at a time like this, even usurp our authority to meet incidents of this character. Is the safety of hundreds to be jeoparded because some persons object to have bodies buried in unconsecrated ground? Surely, there never was so imbecile an authority over any city, as that which controls the fortunes of this devoted city."

Such things are too horrible to be related. From the statements of the *Courier*, it appears that such horrid scenes were not confined to the Fourth District Cemetery alone. It says:

"We have been informed that the condition of one of the graveyards in the Third District is not much better. We would respectfully inquire whether the forty bodies left on the surface of the earth, unburied, were put on the list of burials? We would ask, moreover, if it be possible for a sexton or grave-digger to keep an accurate account of the bodies which are brought to his graveyard through different entrances, and make a correct account of them, amid the confusion and terror of the scenes that surround him? Admitting that he has nerves of iron, he would not be able to fulfil the task, unless he had a dozen pair of eyes to oversee all parts of his domain at once.

"We are surprised that the Mayor has not given part of his attention to this dreadful condition of the burying-grounds. The *Delta* tells us that the Mayor, on being apprised of these facts, said the matter did not fall within the line of his duty. We did think, until now, that the chief magistrate of a city was not travelling beyond the line of his duty, when he was endeavoring to provide means to preserve the lives of his fellow-citizens. We know, and the Mayor knows, that the people of New-Orleans would never blame him for exerting himself to the uttermost for the accomplishment of so noble a purpose, even if in doing so he were compelled to step beyond the line of his duty. A private individual, or a public officer, is always 'within the line of his duty' when he is performing an act of common humanity. 'The line of his duty,' indeed! This is a pretty tale to tell of the head Whig and chief magistrate of New-Orleans! It is like a watchman we heard of, who saw a house broken open on the other side of the street, and refused to give the alarm because it was out of his beat!"

Death was now stalking through the city with frightful strides, cutting down not only the unacclimated, but even the acclimated, who had lived in the city many years, and who had had the yellow fever before. Even those who were born there were not spared. Children of all ages were swept off in great numbers. On the 8th of August the total number of deaths was 228, of which 193 were from yellow fever; which was 28 more than the day before. The deaths for the week ending August 7 were 1,199, of which 970 were from yellow fever.

In the *Crescent*, of the 9th of August, we find some additional particulars regarding the frightful scenes in the cemeteries in an article headed—

"THE UNBURIED DEAD.

"On Sunday afternoon, information was sent to the Mayor that numerous dead bodies were lying on the ground in the Lafayette Cemetery, unburied, for the want of force to perform the work of sepulture. The Chairman of the

Committee on Cemeteries, Mr. Kursheedt, appointed by the Board of Health, repaired to the spot about dark. Near there he found the 'chain gang,' which had been employed from early in the afternoon in the work of burial, coming away, having been unable to inter all the bodies. He prevailed on them, by promise of extra pay and a supper, to go back and resume the work. On arriving at the Cemetery, he found seventy-one bodies lying piled on the ground, swollen and bursting their coffins, and enveloped in swarms of flies. The chain gang was set to work burying them, and by half-past three o'clock yesterday they were all interred. Orders were given, we have been informed, by the competent authority, that no more bodies should be sent to that Cemetery yesterday. One cause of the pressure on this Cemetery was, as we have been informed, the impassable state of Louisa-street, leading to the burying-ground of St. Vincent de Paul, where there are sixty graves dug, and left unemployed in consequence of the difficulty of getting to them. It is also reported that the reason why burial could not be procured in the Lafayette Cemetery, was because the sexton refused to pay more than twenty cents each for digging the graves. This official gets a dollar from the Corporation for each body buried; and if from a niggard motive he failed to have the graves dug, to meet the requirements of the times, he deserves the most unreserved censure of the community.

"The burials have heretofore been made in this Cemetery in such a careless manner as alone to produce pestilence. The tops of the coffins have been sunk no lower than to a level with the surface of the ground, and then covered over in the manner of potato ridges. In this situation, they were subjected to be exposed to the washings of heavy rains, and the sun, acting on the putrid corpses within, they were liable to swell and burst the coffins, thus tainting the atmosphere with a putrescence sufficient alone to generate a plague.

"This was the state of things when several persons in the neighborhood, inhaling the rank effluvia, informed the Mayor of the fact, who immediately took active measures for having the graves covered with eighteen inches of additional earth. Orders have also been issued to the Street Commissioner to send bodies to Potter's Field, or to St. Vincent de Paul, and the gates of Lafayette Cemetery No. 2 have been closed for the present, except to bodies coming from the Fourth District.

"The Mayor, we understand, has taken the responsibility of applying remedies to meet the exigencies of the times.

"The City Council has done nothing commensurate with its power to alleviate the present pressing necessities, brought about by the epidemic; but have left all to be done by private charity. This, however, is attributable more to ignorance of their duties on the part of its members, and not to criminal inattention. Too much credit cannot be conceded to the numerous associations which have undertaken the task of alleviating the present distressing state of facts, and to the Mayor, who has taken such energetic action in this regard."[*]

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[*] The editors of the *Le Courrier de la Louisiane* thus attack the Mayor, for neglect of duty. We presume that at that awful period the Mayor of the city, in the absence of the Councils, had more calls for his services than he could well attend to:

"Il y a quelques jours, une malheureuse femme perdit son mari de la maladie régnante. Ne sachant à qui s'adresser pour faire l'inhumation du cadavre, elle eut recours à un de nos amis; celui-ci l'adressa au maire. La malheureuse se rendit au bureau du magistrat et lui fit la relation de son infortune. Le maire, occupé sans doute de choses plus importantes, entendit à peine cette infortunée qui venait lui demander six pieds de terre pour recouvrir les restes de son mari,

The severest censures on the city authorities were lavishly bestowed by nearly all of the city journals, without distinction of party. It may be well to state that the city at this time was without a government. Under the head of "Delegated Powers," the *Bulletin* of the 9th of August thus exposes the actual state of things:

> "We are desired to say that the Finance Committee, who, it seems, are the putative representatives of the City Council, acting with delegated powers, but actually with no authority at all, excepting so far as relates to the finances of the city, have, at a formal meeting held yesterday morning, passed a resolution, 'requesting' the Board of Health to discontinue interments in the Fourth District, and also have instructed the Street Commissioner to the same effect. They recommend that burials hereafter be made in some of the cemeteries on the Metallic Ridge. They have also provided lime, and the chloride of lime, to be used in the cemeteries.
>
> "So far, so good. But does this committee in reality think it can exercise the functions and discharge the duties of the constituent body that delegated to them certain specific offices? No! they know well enough they cannot; hence the use of the phraseology they employ. They *request*—mark that!—they 'request' the Board of Health to do so and so, thus acknowledging they have not the power to enforce their recommendations. What a humiliating position! A City Council, in the midst of an unprecedented epidemic, adjourning for their own health, convenience, and comfort, during the sickly season, and delegating their powers to a *Finance Committee*, which, in a formally-called meeting, pass resolutions with the *request* that they shall be observed! Oh, 'shame, where is thy blush!' A *Finance Committee*, representing the Board of Aldermen and Assistant Aldermen, for the government of a city in a season of epidemic, carrying off two hundred victims a day!—What a burlesque on municipal government!"

For the information of those who are not conversant with the slave regulations of New-Orleans, it may be well to observe, that the "chain gang" mentioned above consists of negroes convicted for crimes, and sentenced to this punishment.

The mode of burying the dead in the cemeteries was this:—Long furrows, as in a ploughed field, were made, about 18, or at most 24 inches in depth. It was not deep enough to be called a ditch. Into these the diggers threw the coffins and covered them over with only a few shovelfuls of dirt, which the heavy rains that fell daily soon washed away, leaving the coffins in long rows entirely bare, and exposed to the heat of a tropical sun. The coffins, made of plain pine corporation lumber, and but slightly put together, allowed the putrefac-

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mort depuis la veille! Savez-vous quelle fut la réponse de CELUI qui par sa position devrait être le premier à calmer les douleurs, á cicatriser les plaies? *Come back to-morrow! Repassez demain!* Repassez de main! Mais que vouliez-vous, M. le maire, que cette malheureuse fît du cadavre de son mari? Fallait-il qu'elle le jetât dans la rue et qu'elle le laissât exposé au ardeurs du soleil, ou qu'elle le transportât sur ses épaules cherchant de la sépulture que vous lui aviez réfusée?

"Nous sommes fâchés d'être aussi souvent obligés de censurer la conduite du maire; mais entre les sympathies personnelles que nous pouvons avoir pour lui et nos devoirs le journaliste indépendant nous n'avons pu hésiter: il nous a fallu le rappeler à ses devoirs."

tion of the bodies to ooze out, filling the air, far and near, with the most intolerable pestilential odors.*

The scenes of the epidemic were now so horrible and so common, staring every one in the face, that the journals were filled with the horrid details. The editors could scarcely begin an editorial, on any subject, without introducing the horrors of the epidemic, or the neglect of the authorities, before they finished.†

Soon after the beginning of August, a new alarm began to seize on the people. At first, they confidently flattered themselves that it was only the unacclimated and those of intemperate habits who were liable to attack; but they now saw that the awful plague was seizing even the oldest citizens. This, indeed, the French editors predicted, as a result of the indifference of the authorities in regard to the filthy emanations of the gutters and cemeteries, now filled with half-buried corpses.‡

The French inhabitants of New Orleans have ever been among the last to dread the yellow fever; but if we may judge of the state of their minds from the tone of the French editors, we must conclude that their fears had become pretty well aroused. New-Orleans was now a real theatre of horrors.

"Oh, God!" exclaims the *Orleanian*, "how fearful are the visitations of the Destroying Angel; and how harrowing, to the feeling heart, the painful evidences of them! We have just returned from a dwelling where the dead and the dying lie in close proximity! In a small and ill-ventilated tenement, scarcely allowing of more space than is occupied by three bedsteads, are four persons stricken with yellow fever. Two sons lay side by side, and in the vigor and strength of youth, battle with the fell disease; the father and mother in one bed, the former dead and lying at the side of the wife of his bosom, who scarcely knows that he, to whom in early life she was united in holy vows, has passed to the judgment-seat of the All-Wise! who, for purposes beyond our finite ken, afflicts some more severely than others!"

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* *Le Courrier*, of the 8th of August, says:—"Les charrettes du commissaire des rues ou d'entrepreneurs spéciaux (nous ne savons lequel) font chaque jour leur ronde, prenant des charretées de cadavres, qui ont été à l'avance jetés dans des cercueils fournis par la corporation. Elles transportent leur charge funèbre dans le cimetière du Quatrième District, où les cercueils sont déposés en terre. Mais cette expression est à peine juste. Que l'on ne croie pas que ce soient des fosses profondes qui reçoivent les victimes! Non. On nous a assuré que l'on se contentait de creuser un long sillon, comme si l'on préparait ce champ de la mort aux travaux de l'agriculture: dans ce sillon, ayant à peine dix-huit pouces ou deux pieds de profondeur, on place les cercueils; trois ou quatre pelletées de terre sont jetées par-dessus, et tout est dit. Vienne une forte pluie, et alors une longue trainée de cercueils, ouverts pour la plupart, une interminable rangée de corps en putréfaction se montreront à de couvert, répandant au loin des miasmes délétères, et jetant dans l'atmosphère de nouveaux éléments de mort."

† "Nous sommes obligés, bien malgré nous, de revenir sur ce sujet lamentable. Et comment parler d'autre chose que de cette question qui, à l'heure qu'il est, absorbe toutes les préoccupations, alarme tous les esprits. Mais á Dieu ne plaise que nous choisissions ce thême pour augmenter encore les terreurs. Nous savons combien la peur peut ajouter à l'influence d'une épidémie, et si nous pouvions le faire, sans manquer à notre devoir, nous chercherions bien plutôt à dissimuler l'horreur de la situation."

‡ "Mais nous sommes forcés de signaler des faits qui annoncent une incurie coupable et qui, s'ils devaient continuer à se reproduire, feraient succéder à la fièvre jaune une peste contre laquelle personne ne serait en sûreté; le fléau, après avoir dévoré toute la population étrangère, enfanterait une nouvelle épidémie qui absorberait et ceux-là qui croyaient avoir acquis un droit d'immunité par une longue résidence et ceux que leur naissance semblait mettre hors de tout danger.

"Nous avons parlé d'incurie. En effet, il faut qu'il y ait faute quelque part. Les différentes autorités se renvoient la balle, chacun veut se soustraire à un grave devoir, personne n'agit; et cependant la ville voit se former le germe d'une maladie destinée à produire des calamités plus terribles que tout ce dont nous avons été témoins jusqu'ici."

"The plague," says one of the French editors, "which is now decimating our population, recalls those great epidemics which have decimated, at different epochs, certain parts of the Old World, and which have given birth to legends which still frighten the imagination. A little more delay, a little more hesitation on the part of our authorities, and the pestilence of Florence will have had a counterpart here in our city. It seems as though we were bordering upon the realization of the prophecy with which Savonarole frightened Italy, when he exclaimed: 'Then the cities shall be converted into vast cemeteries, and the grave-diggers, hurrying through the cities, shall knock at each one's door, crying out, "Who has dead to bury?"' 'Alas!' cries the editor, "we have not even grave-diggers!"[*]

This was literally true of New-Orleans, for, at the time the above was written, grave-diggers were too few to bury the dead, and could not be hired at $5 per hour.[†] And men, too, went round with carts knocking at the doors, and asking if there were any dead to bury!

The horrid scenes of death during the epidemic in New-Orleans of 1853, baffle all description. Those who witnessed them declare that they have never been exaggerated. What was written there upon the spot by eye-witnesses is certainly worthy of some credit. The following awful description we copy from the New-Orleans *Daily Crescent* of the 11th of August. It is so graphic that we cannot refrain from giving it entire:

"DOWN AMONG THE DEAD MEN.

"To verify the many horrible reports of the doings among the dead," says the editor, "we the other day visited the cemeteries. In every street were long processions, tramping to the solemn music of funeral marches. In the countenances of plodding passengers were the lines of anxiety and grief, and many a door was festooned with black and white hangings, the voiceless witnesses of wailing and of sorrow. On the one hand, slowly swept the long corteges of the wealthy, nodding with plumes and drawn by prancing horses, rejoicing in their funeral vanities; on another, the hearse of the citizen-soldier, preceded by measured music, enveloped in warlike panoply, and followed by the noisy tread of men under arms; while there, again, the pauper was trundled to his long home on a rickety cart, with a boy for a driver, who whistled as he went, and swore a careless oath as he urged his mule or spavined horse to a trot, making haste with another morsel contributed to the grand banquet of death. Now among the steeples was heard the chiming of the bells, as of ghouls up there, mingling their hoarse voices as in a chorus of gratulation over the ranks of fallen mortality. Anon from some lowly tenement trilled the low wail of a mother for the child of her affections, while from the corner opposite burst the song of some low bacchanal, mingling ribaldry with sentiment, or swearing a prayer or two, as the humor moved him.

"The skies wore a delusive aspect. Above was all cloudless sunshine, but little in keeping with the black melancholy that enveloped all below. Out along the highways that lead to the cities of the dead, and still the tramp of funeral crowds knew no cessation. Up rolled the volumes of dust from the busy roads, and the plumes of the death-carriages nodded in seeming sympathy to the swaying cypresses of the swamp, enveloped in their dun appareling of weeping moss—fit garniture for such a scene.

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[*] *Le Courrier de la Louisiane*, of August 8.

[†] "M. Kursheedt, le president du comité des cimetières nomme par le Bureau de Santé, a fait des efforts surhumains pour que tous les corps fussent inhumés; afin d'obtenir des travailleurs il a offert des sommes qui pourraient étre considérées fabuleuses; mais en vain. Tous reculent devant le danger. Ce faite ajoute une nouvelle force à ce que nous avons dit plus haut: il faut nécessairement employer à ce travail les négres de chaínes."

"At the gathering points carriages accumulated, and vulgar teamsters, as they jostled each other in the press, mingled the coarse jest with the ribald oath; no sound but of profane malediction and of riotous mirth, the clang of whip-thongs and the rattle of wheels. At the gates, the winds brought intimation of the corruption working within. Not a puff but was laden with the rank atmosphere from rotting corpses. Inside they were piled by fifties, exposed to the heat of the sun, swollen with corruption, bursting their coffin-lids, and sundering, as if by physical effort, the ligaments that bound their hands and feet, and extending their rigid limbs in every *outre* attitude. What a feast of horrors! Inside, corpses piled in pyramids, and without the gates, old and withered crones and fat huxter-women, fretting in their own grease, dispensing ice-creams and confections, and brushing away, with brooms made of bushes, the green bottle-flies that hovered on their merchandise, and that anon buzzed away to drink dainty inhalations from the green and festering corpses. Mammon at the gates was making thrift outside by the hands of his black and sweating minions, that tendered sweetmeats and cooling beverages to the throngs of mourners or of idle spectators, who, inhaling the fumes of rotting bodies, already 'heaved the gorge;' while within, the 'King of Terrors' held his Saturnalia, with a crowd of stolid laborers, who, as they tumbled the dead into ditches, knocked them 'about the mazzard,' and swore dread oaths, intermingled with the more dreadful sounds of demoniac jollity.

"Long ditches were dug across the great human charnel. Wide enough were they to entomb a legion, but only fourteen inches deep. Coffins laid in them showed their tops above the surface of the earth. On these was piled dirt to the depth of a foot or more, but so loosely, that the myriads of flies found entry between the loose clods, down to the cracked seams of the coffins, and buzzed and blew there their *ovaria*, creating each hour their new-hatched swarms.

"But no sound was there of sorrow within that wide Gehenna. Men used to the scent of dissolution had forgotten all touch of sympathy. Uncouth laborers, with their bare shock heads, stood under the broiling heat of the sun, digging in the earth; and as anon they would encounter an obstructing root or stump, would swear a hideous oath, remove to another spot, and go on digging as before. Now and then the mattock or the spade would disturb the bones of some former tenant of the mould, forgotten there amid the armies of the accumulated victims, and the sturdy laborer, with a gibe, would hurl the broken fragments on the sward, growl forth an energetic d—n, and chuckle in his excess of glee. Skull-bones were dug up from their long sepulture, with ghastliness staring out

'From each lack-lustre, eyeless hole.'

without eliciting an 'Alas, poor Yorick,' and with only an exclamation from the digger, of 'room for your betters.'

"Economy of space was the source of cunning calculation in bestowing away the dead men. Side by side were laid two, of gigantic proportions, bloated by corruption to the size of Titans. The central projections of their coffins left space between them at their heads and heels. This was too much room to be filled with earth. How should the space be saved? Opportunely the material is at hand, for a cart comes lumbering in, with the corpses of a mother and her two little children. Chuck the children in the spaces at the heads and heels of the Titans, and lay the mother by herself, out there alone!

A comrade for her will be found anon, and herself and babes will sleep not the less soundly from the unwonted contact!

"The fumes rise up in deathly exhalations from the accumulating hecatombs of fast-coming corpses. Men wear at their noses bags of camphor and odorous spices—for there are crowds there who have no business but to look on and contemplate the vast congregation of the dead. They don't care if they die themselves—they have become so used to the reek of corruption. They even laugh at the riotings of the skeleton Death, and crack jokes in the horrid atmosphere where scarcely they can draw breath for utterance.

"The stoical negroes, too, who are hired at five dollars per hour to assist in the work of interment, stagger under the stifling fumes, and can only be kept at their work by deep and continued potations of the 'fire-water.' They gulp deep draughts of the stimulating fluid, and, reeling to their tasks, hold their noses with one hand, while with the other they grasp the spade, heave on the mould, and rush back to the bottle to gulp again. It is a jolly time with these ebon laborers, and with their white co-workers, as thoughtless and as jolly, and full as much intoxicated as themselves.

"And thus, what with the songs and obscene jests of the grave-diggers, the buzzing of the flies, the sing-song cries of the huxter-women vending their confections, the hoarse oaths of the men who drive the dead carts, the merry whistle of the boys, and the stifling reek from scores of blackened corpses, the day wears apace, the work of sepulture is done, and night draws the curtain."

Can all the annals of epidemics furnish a more appalling description than the above? What a medley of death, misery, woe, vice, and utter thoughtlessness and indifference, to even the most horrid things in life, does it present! Shakspeare's jesting grave-diggers are as nothing to these grave-yard scenes enacted in New-Orleans in 1853.

During the epidemic, the streets of New-Orleans presented nothing but scenes of misery, disease and death. The King of Terrors had full sway. Hearses were constantly passing, with hot haste through all the principal streets; and carts, wagons, and cabs, filled with the sick going to the hospitals, met the passer-by at every step. Many died in carriages on their way to the hospitals; and the verdict, "Died of yellow fever while going in a cart to the hospital," was a common announcement in the newspapers. Many were found dead in their beds, in stores, in the streets, and in other places. Crime was very prevalent, if we may judge from the lengthened police reports in the journals; and a moral epidemic, terminating in suicide, seemed to prevail. We will relate a single instance. The *Bulletin*, of August 9th, says:

"An aged Frenchman, who had been an officer under Napoleon, and who arrived at this city with his wife about three weeks ago, fired two pistol shots into his mouth, and subsequently stabbed himself. He resided with his wife in the upper story of a house on Chartres-street, and under the impression that she was about to die of yellow fever, he determined that he would not be left behind her. He lingered for several hours, but we understood that both husband and wife died last night."

On the 10th of August, the Board of Health reported 223 deaths for that day, of which 184 were from yellow fever. The clamors, now, about the filth of the streets, were louder than ever. The *Picayune*, of the 11th of August, joins in the universal complaint, thus:

"Notwithstanding the frequent, the universal complaints, we do not see that the contractors for cleaning the streets attend any more faithfully to their duties than before. The Board of Health required all offal from houses to be deposited before the street doors at 6 o'clock in the morning; but the carts do not pass at that hour, or anything like that hour, to carry off these deposits. Surely these contractors are a hard-headed, hard-hearted, opinionated, selfish set of men. We should like to have their names, to hold them up to public scorn and indignation. They deserve some severe punishment for their delinquencies, so repeated and so perverse, and we would be delighted to assist in bringing this about. We, in the prospect of big heaps of mud now and for the last two weeks before our own office door, only hope that these contractors may make no money by their bargains, and that each of them may some dark night fall into a gutter head foremost, something like that we saw yesterday in Dauphin-street, near Bienville. That's all."

Some denounced the Mayor—others the Councils—others the Board of Health, and others all of them. The poor Mayor shared the vituperations of all parties. The *Courier* attempted to uphold the Councils against the universal denunciations of the people, while all its vials of wrath were constantly being poured out on the devoted head of the Whig Mayor. The French editors join in the boisterous chorus of complaint, introducing a new element, which they declared was not less to be feared than the filth of the streets and the putrid exhalations from the grave-yards; namely, the swarms of medicasters, empirics, charlatans, Raspailists, homœopathists, Indian doctors, &c., &c., who filled the city and the newspapers with their nostrums and lying placards, professing to be able to cure the most virulent cases of yellow fever.*

What became of the $10,000 given to the Board of Health for the purpose of cleaning the streets, it is difficult to say; but it is certain, from the complaints of all parties, that the Board of Health did not clean the streets.

The frightful pestilence continued. On the 11th of August, 203 persons died of yellow fever. On the 13th of August, the Board of Health reported for the week 1,494 deaths, of which 1,262, were from yellow fever, or 180 daily, on an average. During the same week 262 died of yellow fever in the Charity Hospital. In Algiers, on the opposite side of the river, with a population of only about 1.600, the ravages of the pestilence were equally great. During the week, 42 died there from yellow fever.

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* *Le Courrier*, of August 11th. says:—"Ajoutez à tous ces éléments de mort un autre qui n'est pas moins à craindre; nous voulons parler de cette classe que fait pulluler toute épidémie, médicastres, empiriques, charlatans, qu'ils s'intitulent Raspailistes, homéopathes, médecins indiens, &c., &c.! Tout est calculé pour activer ou prolongerle fléau qui dévore notre population. Si on regarde en haut, là ou le zèle et la vigilance devraient toujours être en éveil, que voit-on? Un fantôme d'autoriré qui à toutes les misères, à toutes les plaintes répond: Repassez demain! Des centaines de cadavres sont exposées dans les différents cimetières sans inhumation, et le maire n'en est informé que lorsque les exhalaisons qui se dégagent de ces corps en putréfaction répandent l'alarme dans les quatre coins de la ville. Deux cents victimes succombent journellement, le maire ne s'en émeut aucunement. La peste est à nos portes, le maire ne s'en préoccupe pas plus que de la révolution chinoise ou de la question d'Orient."

In justice to the homœopathists, we add the following:

"Voici notre premier cadavre.... rue Mandeville, encoignure Craps. Sur cinquante malades atteints de l'épidémie régnante, que nous avons en à traiter, quarante sont parfaitement guéris, sept sont en voie de guérison assurée, deux sont encore gravement malades, ils n'ont pas de passé la première période, le dernier est mort dans la seconde phase de sa fièvre.

"DR. TAXIL, Practicien Homœopathe."

The weather in New-Orleans continued to be very extraordinary. The *Delta*, of the 17th of August, says:

> "We have had rain every day now for more than two months, and there is no indication of a cessation. To it, we think, may be attributed, in a great measure, the virulence which distinguishes the epidemic of this summer from the visitations of other seasons. In fact, we have been informed that, during previous visitations of the yellow fever, the weather has always been remarkably dry and sultry. The day before yesterday, in a visit to the suburbs, we found some of the streets utterly impassable. The water, in some places, was running out of vacant lots over the sidewalks; and we learn that it is almost impossible for the hearses to get to some of the cemeteries, because of the muddy condition of the streets and roads. Yesterday we had another deluging rain, and it needs no prophet to foresee that more is coming."

The next day the same journal adds:—"The weather last night was so cool as to require additional coverlids for beds, and the closing of doors and windows. The epidemic suffers no abatement; but there are no signs of any perceptible increase." This was an error of the *Delta*, for two days afterwards, on the 20th, the Board of Health reported 1,534 deaths for the week, of which 1,302 were from yellow fever, or 186 per day on an average.

On the 19th of August, the Board of Health resolved to leave nothing untried to purify the atmosphere and drive away the pestilence, ordered 400 discharges from the six-pounders of Major Galley's artillery to be made daily, in the public squares of the city, until further orders; and that large quantities of tar be scattered throughout the streets and set on fire. It was also ordered to be burned in the cemeteries; which gave rise to the ridiculous rumor, telegraphed all over the Union, "that sufficient laborers could not be had to dig the graves, and that the authorities had resorted to burning the bodies,"

On the 20th of August, the Howard Association found the pressure of the still increasing epidemic so great, that they were compelled to open four new hospitals. All the public schools having been closed during the epidemic, the Association obtained for one of them the use of the Washington School-House, a large two-story building, with extensive corridors, in Magazine-street. A portion of the same building was also used as an asylum for the orphan children, whose parents had been carried off by the epidemic.

On the 20th, the *Bee* comments on the table of mortality, for the day, as a frightful record. "Two hundred and forty-two deaths for one day, and 219 of yellow fever!" The *Bee* adds:

> "We are certainly discouraged at this appalling expose. When and where will the fever end? If the mortality remains undiminished, while the population daily decreases, and after so many thousands have perished, and so many more have passed through the ordeal of the scourge, it seems indubitable that its malignity must be greater than ever. If, for example, when there were 50,000 unacclimated persons in our city, the deaths averaged 200 a day, now that one-half that number have had the fever, died or recovered, or have fled from the city, a corresponding ratio of mor-

tality ought not to average more than 100 per diem. Yet the deaths are absolutely quite as numerous, and relatively far more so.

"This is undeniably sound logic. Nobody will pretend that there are as many subjects for yellow fever in our city now, as there were one month ago. The material has been largely reduced, yet the epidemic carries off daily the same number of victims. For ourselves, we have given up speculating. The characteristics that mark the present visitation baffle all reasoning founded upon past experience and observation. We think it altogether probable, that the fever will not disappear until all the unacclimated have been attacked—or until a spell of cold weather cuts it suddenly short. If we are mistaken, so much the better."

The firing of cannon was found to be injurious to the sick, many of them being thrown into convulsions by it. On the 20th of August the Mayor ordered it to be discontinued, the burning of tar being still recommended. It is possible that the firing of the cannon, and the burning of the tar, had a positive and salutary effect. The order to fire the cannon and burn tar was given and carried into effect on the evening of the 18th of August, and was continued two days, the order to cease being given on the morning of the 20th. Two days afterwards, the 23d, a notable decline was witnessed in the epidemic, the deaths from yellow fever falling from 254 on the 22d to 234 on the 23d. It continued to decrease rapidly, as will be seen by the following table which we take from the *N. O. Commercial Bulletin:*

"For the purpose of reference, and to show at a glance the extent and progress of the disease since its first appearance among us, we give the following table, carefully corrected from the daily official reports:

Corrected statement of the reports of the interments in all the Cemeteries of the City, from the 22d of May.

		Yel. fev.	Oth. dis.	Tot.
Week ending May	28	1	139	140
.. June	4	1	141	142
.. ..	11	4	150	154
.. ..	18	7	140	147
.. ..	25	9	158	167
.. July	2	25	152	177
.. ..	9	59	129	188
.. ..	16	204	140	344
.. ..	23	429	188	617
.. ..	31	692	192	884
Daily—August	1	117	25	142
..	2	121	14	135
..	3	129	17	146
..	4	151	15	166
..	5	141	9	150
..	6	208	30	238
..	7	169	40	209
..	8	204	24	228
..	9	172	20	192
..	10	191	33	224
..	11	204	14	218
..	12	182	25	207
..	13	192	22	214
..	14	206	26	232
..	15	187	26	213
..	16	174	19	193
..	17	198	21	219
..	18	197	22	219
..	19	219	15	234
..	20	195	29	224
..	21	245	24	269
..	22	254	29	283
..	23	234	24	258
..	24	199	23	222
..	25	199	19	218
..	26	164	29	193
..	27	159	26	185
..	28	142	26	168
Daily—August	29	128	15	143
..	30	125	14	139
..	31	110	27	137
September	1	103	16	119
..	2	110	23	133
..	3	96	20	116
..	4	95	15	110
..	5	72	26	98
..	6	70	25	95
..	7	53	17	70
..	8	52	7	59
..	9	47	17	64
..	10	61	19	80
..	11	48	20	68
..	12	40	15	55
..	13	28	19	47
..	14	35	10	45
..	15	33	19	52
..	16	32	19	51
..	17	26	21	47
..	18	30	15	45
..	19	23	11	34
..	20	35	14	49
..	21	17	21	38
..	22	20	14	34
..	23	16	12	28
..	24	12	22	34
..	25	16	19	35
..	26	17	23	40
..	27	14	19	38
..	28	14	15	29
..	29	13	22	35
..	30	11	5	16
October	1	15	16	31
..	2	6	5	11
..	3	8	9	17
		8,215	2,781	10,996

The salutary effects of the firing of cannon and the burning of tar had been witnessed before in New-Orleans. The *Louisiana Courier* of August 21st, in commenting on the subject, says:

> "It was tried here in the height of the pestilential cholera of 1832; and all the persons now living, who witnessed the ravages of that distemper, concur in the opinion that the salutary effects of those appliances were great and manifest. With this experience, and that of every city where the same means have been resorted to, the Board of Health cannot do wrong in repeating the experiment, and giving it a fairer chance than they have yet done. One good effect derived from it is worth all the expense that has been incurred in making it; and that is, the smoke of the burnt powder and tar, wherever it appears, is a killing dose to the musquitoes. This fact alone is proof that the concussion and the smoke act as powerful purifiers. Let the tar burn and the cannon roar.
>
> "Since the foregoing was in type, we learn the Mayor has resolved that the cannon shall not be fired as usual—the Mayor has so determined from regard to the feelings of the sick; and the Mayor is right for this time."

From the preceding table it will be seen that the 22d of August was the most fatal day during the epidemic, 254 having died on that day of yellow fever! At this stage of the pestilence, the stoutest hearts quailed at the horrid work of death that was going on around them. Never had there been witnessed anything on this continent equal to it. The ravages of the cholera at St. Louis were nothing compared to this. Nor were the great plagues in London in 1606 and 1665 as fatal, in proportion to the number of inhabitants. But when we look over the history of plagues in the Old World, we see that this of New-Orleans, in 1853, was merciful compared to those of former ages. During the time of Justinian a plague lasted for fifty-two years, and Gibbon computes the entire mortality at one hundred millions. At Constantinople ten thousand died daily.

During the middle ages, the plague swept over Europe, several times, with frightful violence. Boccaccio has left a vivid narrative of its appearance at Florence, about the middle of the fourteenth century. It bore the name of the "Black Death," and closely resembled the old plague of Athens. Visiting England, it swept off fifty thousand inhabitants of London alone, though the British capital had not, at that time, probably more than two hundred thousand inhabitants. Fifty years later the plague appeared again in London, when thirty thousand persons perished of it within a twelvemonth. In 1517, an epidemic called the "Sweating Sickness," broke out in Europe, and extending to England, deprived the principal towns, according to Stowe, of half of their inhabitants. In 1603, nearly forty thousand persons died of plague in London. About the same period, Constantinople is said to have lost two hundred thousand of its inhabitants by the same disease.

Other pestilences, since the London one of 1665, have been very fatal. In 1720, 60,000 persons perished at Marseilles, or quite half of the population. In Egypt, Syria, and Barbary, the mortality from plague has frequently trebled, and even quadrupled, the present mortality at New-Orleans. In the Great Plague, London lost 100,000 of her inhabitants, or one-third of those who stayed to encounter the pestilence.

During the whole of the epidemic of the past summer, not only the Howard Association, but many other associations of the city, were indefatigable in their exertions to afford relief, facing death in all its awful forms. The Firemen's Associations were exceedingly active; and particularly the Masons and Odd Fellows, thus carrying out to the very letter the noble principles of their orders, even at the risk of their lives. The clergy, too, were equally industrious and devoted, nursing the sick and administering consolation to the dying, night and day. The *Picayune* of the 19th of August thus alludes to their labors and sufferings:

"Our clergy are not wanting in their duty to their flocks. Those who are well have notified where they can be found: a Protestant clergyman up town has been for some days very ill with the yellow fever, but is now, we believe, convalescent; the Rev. Mr. Aylward, of the Church of St. Theresa, and the Rev. Mr. Moynehan, of St. Peter's, Catholic clergymen, are under its influence; and the Rev. J. E. Blin, of St. Augustin's, on the Bayou Road, has died of it. The majority of the general patients are of the Catholic persuasion, and their pastors have a very trying time of it. The Rev. Mr. Whitall, of the Methodist Episcopal Church, we believe, has signalized himself by his incessant devotion to the sick of the Third District."

The Rev. Mr. Dobbs and his wife, of the Jackson-street Church, both fell victims to the epidemic. Many that were away from the city returned, in the very height of the epidemic, to lend their aid. The names of the Rev. Dr. W. A. Scott, Mr. I. J. Henderson, Mr. N. G. North, Mr. Twitchell, the Rev. Dr. Clapp, and many others, deserve to be mentioned.

The 21st of August* was called, in New-Orleans, "*The Black Day.*" *The Delta* of the 23d has the following:

"THE BLACK DAY.

"The twenty-four hours from 6 o'clock, A. M. on Saturday, till 6 o'clock on Sunday, the 21st, constitute the blackest day in the gloomy annals of the fearful pestilence which has desolated our city. It is, we trust, the maximum point of our calamity. The reported deaths for this period, were 269, of which 230 were of yellow fever, and 15 are not stated. To this, the *Crescent* adds 28, which are reported to have been interred in St. Patrick's, without certificates, and 18 in the Hebrew Cemeteries, Nos. 1 and 2, from which no reports had been received up to the making up of the returns of the Board of Health. This would make a total of 315 deaths for twenty-four hours, which is more than double our usual weekly mortality, when not afflicted by an epidemic.

"Gloomy and melancholy as this statement is, we have learned from reliable sources, that there are grounds for the hope that the disease begins to decline, and that the worst is now over. We have already been cruelly disappointed in many of our estimates and hopes, in regard to this epidemic. We trust that this one, at least, may not fail."

The ravages of the pestilence were now so terrible that all were in despondency, and the journals endeavored to allay the gloom. The

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* There were some discrepancies in the mortuary reports, as will be seen by comparing this with the preceding table.

Orleanian, one of the merriest journals of the South, endeavors thus to console the people:

> "Many of our fellow-citizens are becoming unnecessarily appalled by the numerous deaths which the daily bulletins proclaim. This should not be, as nothing tends more effectually to engender disease than timidity. Even among the stricken, we notice that firmness and resolution are more efficacious in perfecting cures than medicine. All who are afflicted with the disease, it should be remembered, do not die; while it is only an acclimating process, through which every one, who makes the Crescent City his or her home, must anticipate, at one time or another, to pass. Again, death is the common lot of mortality; 'to-day, for you—to-morrow, for me!' Why, then, think to evade it?
>
> "It may be as well to die now as in a score of years hence; for come the scythe-bearing summoner will, at one period or another. Fears are not only useless, but positively dangerous, and tend to kill more than that tripartite of ills, 'plague, pestilence, and famine.' Who does not recollect or know of the tale told of Death, who, on visiting a city with his presence, made a compact not to slay more than a thousand, yet the bills of mortality presented a list of eleven thousand? On being asked why he had not conformed to his promise, he replied that he had religiously done so, and slain *his* thousand, but that the panic had added a tithe more to the number! The foregoing, although allegorical, we make no question, is, nevertheless, veritable."

The scenes in the grave-yards at this time beggared all description. The dead bodies accumulated so fast, and the men employed in burying were so few, that quarrelling actually arose in the cemeteries among those bringing the bodies of their friends for interment, as to which should be buried first. Unwilling to await their turn, many fell to work, buried their own dead, and broke down the palings surrounding the cemetery for stakes to place at the head and foot of the graves.*

Loud complaints were made that the sextons did not report all the interments. The truth of those complaints is confirmed by the following paragraph, which we find in the *Daily Delta* of the 21st of August. The editor says:

> "We visited last evening the various cemeteries on the Ridge, and regret to report a fearful increase of the mortality as exhibited in the burials in these cemeteries. We found all the cemeteries in good order, with the exception of St. Patrick's. The officer on duty informed us that the fence wants repairing, as cattle are now found in the cemetery every morning, and they have trampled on the new-made graves. One of the sextons informed us that some parties pull up the pickets of the fence and bury their dead without a certificate or any account being taken."

The following from the facetious *Orleanian* of August 23d—it is, however, too often out of season—exhibits an awful state of things. Think of a woman burying the dead!—

> "Complaints, not alone of the confusion and irregularity existing in the Cemetery of St. Patrick, but of the neglect of the sexton to make regular and correct returns, are frequent. Some time ago, these things might be visited with deserved censure; but, just now, when all is difficulty and

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* *Daily Delta*, August 21.

death—when delays and embarrassments are experienced everywhere, reproaches are out of place and denunciations unjust. We think, too, it would be asking too much of the sexton, that he should, from that *bourne* to which he has departed, issue diurnal bulletins of the mortality, and in round numbers give the returns of the interments to the Board of Health. Great allowances must be made at the present time for derelictions, when not too flagrant and glaring.

"It appears that the wife of the sexton has assumed the duties of her defunct husband, and in the *grave* business, is assisted by two nephews. She must be an heroic and industrious woman, to undertake, at a time of such sweeping devastation, so laborious and difficult a task; a task from which all have fled—even the very negroes. The public authorities should remedy with all promptness the abandonment—as the trustees, or those on whom the responsibility rested, have shown themselves inadequate to it.

"On Sunday evening, Aug. 20th, we are informed that parties who accompanied a funeral from the Third District to St. Patrick's, discovered that there was not a single person on the ground to dig graves, and not having the implements for doing so themselves, they sought around and perceived a tomb, the entrance to which was partially broken, and into it, as a dernier resort, not being able, in such an emergency, to do aught else, they thrust the defunct."

We must here close our details of the epidemic in New-Orleans, to pursue its ravages in the South generally.

In the precipitate flight of the inhabitants from New-Orleans, carrying with them the seeds of the disease, hundreds perished on the way, or were attacked soon after landing at their places of destination. Almost every steamer that left the plague-stricken city deposited its dead, sick, and dying along the shores of the Gulf, the Mississippi, Red and other rivers. Consequently, in all of the principal towns approached by steamers, cases of yellow fever appeared soon after it became epidemic at New-Orleans. The *Louisiana Courier* of the 8th of September says:

"During a flying trip along the coast on Sunday, Monday, and Tuesday last, we ascertained that the yellow fever is prevailing, or exists, in almost every town between New-Orleans and Bayou Sara. The *Ledger* of the latter place, published on the 3d, denies that the disease existed there. We were there on the 5th, at which time it was acknowledged that at least one case had originated in the town, and would certainly terminate fatally. At Plaquemine, there are numerous cases of fever, and also at Donaldsonville. Baton Rouge is afflicted with a considerable amount of sickness. There are doubts expressed whether the prevailing disease is yellow fever; but as it takes off five or six a day, it is probably just as bad. We learn also that the fever has been very severe at Trenton, on the Ouachita, where there were 17 deaths in one day. The accounts from Thibodaux, published by us yesterday, are sufficiently indicative of the melancholy state of affairs existing there. Thus far, therefore, yellow fever has manifested itself in the following places besides New-Orleans:—Mobile, Pascagoula, Biloxi, Pass Christian, Bay St. Louis, Pensacola, Donaldsonville, Madisonville, Plaquemine, Covington, Baton Rouge, Bayou Sara, Natchez, Woodville, Port Gibson, Grand Gulf, Vicksburg, Trenton and Thibodaux."

The accounts from Thibodauxville, alluded to above, were the following:

"The following endorsement was written on the mail bill from Thibodaux, September 2, which arrived here yesterday: 'Stores closed—town abandoned

—151 cases of yellow fever—twenty-two deaths—Postmaster absent—Clerks all down with the fever.'

"The dreadful news from Thibodeauxville is confirmed in all its details. In fact, the real state of affairs there is more disastrous than the previous accounts made out to be. We are now informed, on good authority, that the town is in a great measure deserted by its inhabitants, all business is suspended, most of the people remaining are sick, 22 deaths in one day, and 160 new cases. This town is situated at a considerable distance from the Mississippi, down the Bayou Lafourche."

According to accounts—and the Southern papers are filled with them—the yellow fever was quite as malignant in all the towns of the interior where it appeared as in New-Orleans, if not more so. At Thibodauxville, Natchez, Baton Rouge, Vicksburg, Bayou Sara, and at almost every other place where it appeared, it seems to have swept off more people, in proportion to the population, than in New-Orleans, probably owing to the fact, that medical aid in those places could not be obtained sufficiently early after the attack. The aspect of the disease in those places is described as most hideous and appalling, as well as in the places along the Gulf shore, between New-Orleans and Mobile. At the latter place it made its appearance early after it broke out at New-Orleans, and raged violently during the months of September and October. It extended far into the interior of Mississippi, and raged fearfully at Jackson, the capital of the State. It passed over into Texas, decimated Galveston, Houston, and other places, and visited places in which it never appeared before. It seems to select no particular localities of the South, but to rage equally in the clean and the unclean—as well on the high, clean, and airy heights of Baton Rouge and Vicksburg, and even in the delightful pine regions of Woodville, as in the filthy streets of New-Orleans. The truth is, that nothing—absolutely nothing—is known of its cause, although it has been studied attentively for more than a century, with all the aids that modern science could afford.

Natchez was the first on the Mississippi, after New-Orleans, where the disease, this year, became epidemic. One thing appears to be pretty certain, namely, that the course of the disease from New-Orleans, where it in all probability originated spontaneously, was along the various steamboat routes leading from that city in almost every direction. On Red River it raged at Alexandria, Natchitoches, Grand Ecore and Shreveport, with its accustomed virulence, the people flying in every direction before it as it advanced. It also appeared in many towns far from the river, in the interior, quite unconnected with navigation.

We cannot close this paper without referring once more to the labors of the Howard Association of New-Orleans. As soon as the fever had abated in that city, the members of that Association flew to the aid of the sick in the country, visiting, we believe, all of the principal places where the disease was raging, lending their valuable aid to all. If benevolent acts can immortalize, assuredly the Howard Association will go down on the pages of the history of our country as long as history continues to be written. Nor must we forget to mention the promptitude with which all parts of the Union rose to send aid to the distressed and dying of New-Orleans. The horrors of the epidemic made every heart in the Union thrill with sympathy, and meetings were simultaneously called in many places to collect money to send to the aid of the Howard Association in their work of love and kindness. As we have no room for further details, we give the following table of the donations which have been contributed responsive to the call of the sufferers, and presume that the aggregate will not vary much from the actual amount which has been received by the Howard Association:—

New-York	$52,585	Lynchburg, Va	$1,200
New-Orleans	38,500	Natchez, Miss	1,200
Philadelphia	20,111	Brooklyn	1,076
Cincinnati	14,000	Newport, R. I.	1,023
Charleston	10,840	Norfolk, Va	1,000
Boston	10,500	W. Sulphur Springs, Va	885
Baltimore	10,675	New-Haven	800
St. Louis	7,243	Bladen Springs, Fla	758
Pittsburg	5,747	Montgomery, Ala	770
Louisville	4,494	Petersburg, Va	698
Chicago	4,335	Pass Christian, La	605
Savannah	3.624	Adams County, Miss	500
Washington	3,500	Macon, Ga	500
Nashville	3 261	Newark, N. J	450
Richmond, Va	2 595	Saratoga Springs	370
Providence	2,500	Baton Rouge, La	772
Mobile,	1,800	Mississippi City	272
Cleveland	1,600	Portland, Ky	231
Wilmington, N. C	1,784	Jefferson, La	200
Jersey City	2,000	Enfield, Conn	200
Augusta, Ga	1.525	Sandusky City	120
Memphis	1,400		
New Albany, Ia	1,325	Total	$218,798
Columbia, S. C	1,229		

A great many subscriptions have been sent from various parts of the country by individuals and societies directly to the President of the Howard Association, which are not included in the above, and of which we have no reliable data, but they probably will amount to no less a sum than $15,000, which will make the total subscriptions for the New-Orleans sufferers amount to two hundred and thirty-three thousand seven hundred and ninety-eight dollars.*

The donations for Mobile, up to September 16, were as follows:

New-York	$9,232
Mobile	6.500
Boston	2,000
New-Orleans	1.800
Total	$21,032

Up to the 15th of October the fever continued its ravages in nearly all the towns of the South. Though we have not half exhausted our subject, we close here with the following table from the *Picayune* of the 16th of October, which is the official account up to the 15th of October:

"The table of the total interments, since the first yellow fever case was reported as terminating fatally, is as follows. It includes those deaths by yellow fever which were certified to as such by the physician:

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* New-York Herald.

"Week ending on Saturday, at 6 A. M.—

	Total.	Yel. Fever.		Total.	Yel. Fever.
May 28	140	1	Aug. 20	1534	1302
June 4	142	1	Aug. 27	1628	1365
June 11	154	4	Sept. 3	955	749
June 18	147	7	Sept. 10	576	421
June 25	167	9	Sept. 17	365	221
July 2	177	25	Sept. 24	263	125
July 9	188	59	Oct. 1	219	85
July 16	344	204	Oct. 8	133	42
July 23	617	429	Oct. 15	79	29
July 30	723	555			
Aug. 6	1134	947	Total	11,179	7,842
Aug. 13	1494	1262			

Cases in the last eleven weeks of the table in which the causes of death were not stated	456
Of these, six-sevenths for yellow fever	393
Total of deaths by the fever since the week ending May 28	8,220

The history of the awful epidemic of 1853, we trust, will soon be given to the world in all its details. A commission has been appointed for that purpose in New-Orleans. We hope they will give us all of the facts, out of which we can form our own theory. They are the men competent to do it. The name of Axson is alone sufficient to give character and rank to the commission. That of Barton is equally big. The public await with anxiety the results.

Bad as things are and have been, we believe there is a future for New-Orleans which will make amends for her past sufferings, and that when her citizens are indeed awakened to their true position, and take the steps which prudence and science dictate, nothing will intervene to prevent the city from maintaining her high rank of metropolis of the South and the West. May the day be hastened on.

A committee of the Board of Aldermen, on the recommendation of the medical faculty, and particularly of Drs. Axson, Wedderstrandt, Le Monnier, and McCormick, propose for the city,

1. A system of underground drainage.
2. To purchase and enlarge the water-works, so as to afford a plentiful supply of water to every square in the city.
3. To pave the streets with square blocks of stone, or with any hard material that will present a smooth and even surface, and thus prevent the accumulation and deposit of filth, and enable the streets most easily to be kept clean.
4. To establish a system of cheap bathing houses, and also public washing and ironing establishments, (at rates so reasonable as to be available to all,) upon the system found so eminently successful in New-York and London.
5. By continuing the drainage of the low lands around the city until completed.

An ordinance has also been carefully prepared, creating a Health Department for the whole city, with a Health Officer to be elected for two years, and to receive a salary of $6,000. Such assistants as may require are also to be created, and to be well paid.

The Hon. A. D. Crossman, Mayor of New-Orleans, in a message to the Council, of the date 18th October, thus pays a due meed of praise to the humanities which were exercised by the citizens during the plague:—

> "In offering this feeble testimonial to the signal merits and services of the Association, I must be permitted to add that their endeavors were warmly seconded by every citizen. In the midst of the great distress, every one obeyed with alacrity the call of suffering humanity, and contributed his share towards the mitigation of the general evil. And it may safely be asserted that under equally trying circumstances, no community displayed a greater degree of fortitude, and a more cool, resolute and cheerful courage. Even when the mortality had reached a point that might have well appalled the stoutest heart, there was no faltering and no despondency; and though the countenance of every citizen reflected the gloom from without, there was not even the semblance of a panic. This much it may be due to say, in justice to the reputation of our city, which, at a period when no one should have exaggerated the horrors of a fearful calamity, was assailed abroad in a wanton and unprovoked manner. I am happy, however, to say, that this was the exception only, and not the rule, and I should not have alluded to the subject, were it not thus formally and officially to correct the impression that may still prevail in some quarters, and even during the period of the greatest mortality, the rights of sepulture were not performed with due decorum and decency."

Dr. Halphen of New-Orleans, in a report translated for and printed in Fenner's Medical Reports, vol. 1, p. 134, says that the mortality in the city during the cholera of 1832, reached as high some days as 500 persons, and in twenty days destroyed 6,000 persons; and in referring to the same epidemic, Col. Wagner says, and with his remark we close this already too extended paper:

> "The pestilence that rages in the midst of us is dreadful in itself, without reading the addition of horrors not appertaining to it. We have witnessed epidemic yellow fever more generally prevalent in this city, more fatal in its attacks, and destroying a greater number of lives in proportion to the amount of population. The cholera of 1832, when the city of New-Orleans had not half of its present extent, either in territory or inhabitants, killed off five hundred, six hundred, and as high as seven hundred persons every twenty-four hours, for a series of several days. In truth, it was believed at the time by intelligent citizens, that one-third of those who died were not counted in the list of interments. The living could not or would not bury the dead. It is well known that many dead bodies were cast into the river, or buried in private grounds, adjacent to the spot where they breathed their last. These are facts which can be easily authenticated. What then? Here is New Orleans, as large as life, at least twice as large as it was twenty-one years ago, when the cholera was down upon us."

Art. V.—THE EFFECT OF DROUGHT UPON RICE LAND.

SEASONS of drought are always calculated to arouse the fears, and awaken the attention of our rice planters—especially those on certain rivers, who frequently suffer from this cause—many losing their entire crops. Interest, if no other motive, should direct the planters to seek and apply every means, that may in any measure tend to obviate such disastrous results, which cannot but end in embarrassments of various natures.

If fresh water be furnished, in sufficient quantity, there is no apprehension as to what the result of the crops will be; but this not being under our control, we become subject to the variable nature of the seasons, at one time making an abundant crop, at another time losing every ear of rice. Want of water has been considered the sole cause of all this evil. But we ought to look farther into the matter; and it is for this reason that attention is called to the following statement of facts connected with the subject.

The mere deficiency of water cannot *alone* be the direct cause of that complete destruction attending many of the crops; for rice planted upon sandy high-land, (a rice differing but little from that planted in the swamps), yield eight, ten, or even more bushels to the acre, and that too during an ordinary season. This I know to be a fact, having among other instances seen it several summers ago in the north-western part of Georgia; and besides, the inefficiently watered rice-fields of the Nile afford another example, on an extended scale. But the fact is, there is no necessity of going to Egypt to look for this; for with us, not a year passes without rice growing on spots that water never reaches, except in the form of rain. It being admitted, as it must be, that the *mere deficiency* of water cannot be the only cause of the complete annihilation of any crop of rice; we must look to some other effects produced by a drought, than that of depriving the rice of a certain amount of moisture. To discover what this is, has been my effort for some time past, and it *has* been attended with some success, both as to the effect, as well as to the means by which to correct it, to an extent more or less great, according to the peculiarities of the different soils, and the dryness of the season.

In all of our swamp lands there exists, in more or less abundance, a substance called pyrites, which is composed of sulphur and iron. This fact any one may make himself acquainted with, by burning a portion of the soil, when the well-known odor of burnt sulphur will be at once perceptible; there may also be a small portion of sulphur uncombined with iron, arising from the vegetable matter, of which it originally formed a constituent part. Whether this be the case or not, it is a matter of little importance, as the first substance mentioned (the pyrites) is sufficient of itself to explain what follows.

This pyrite is constantly undergoing a decomposition, and combining with one of the elements of air and water, forming sulphuric acid and oxide of iron. At first these two substances are in combination, under the form of the well-known salt copperas, which in its turn is either wholly or in part decomposed by alumina, and a species of alum is formed. It would be useless to go into a minute explanation of how these changes are produced; it is sufficient, in order to be understood, to have it known, that the decomposition of the pyrites gives rise directly to the formation of copperas, and indirectly to that of a species of alum; *these results are poisonous to vegetation, and their formation is unavoidable.*

During all seasons, and in all soils, there is either a descent or an ascent of moisture—the one happening in wet seasons, or just after a rain, and the other in seasons of drought. In the former case, (a wet season,) the roots of the plants imbibe nothing but fresh water; while in the latter, (a dry season,) they are affected by whatever impurities the sub-water may bring along with it to the surface. If the ingredients brought up in solution are innoxious or nutritious, the plants flourish; if noxious, they are either injured or killed.

What has just been stated is applicable to the rice-field; for if we are furnished with a sufficiency of such water as may be applied to the land, the surface can be kept moister than the subsoil, and there will consequently be a tendency of the water to pass from the surface below, and in its passage, meeting with the copperas and alum, dissolves them and carries them farther from the roots of the plants. If the case be reversed, as during a dry season, when the water is too low, or too brackish to be let on the fields, and the surface becomes parched and dry, then it is in the subsoil that the water preponderates, and owing to the capillary action of the soil, (a property common to all porous bodies,) there will be an ascent of moisture towards the surface, which will bring along with it the copperas and alum in solution, the effects of which are so pernicious to vegetation.

It requires no scientific investigation, or chemical analyses, to prove that this takes place in the way mentioned; a little observation can convince any one of the fact; for if we taste a little of the soil a day or two after the water has been drawn off, it will be found tasteless; on the contrary, if the same soil be tasted after a season of drought, a sweetish styptic taste is apparent. In fact, in many fields, after a long drought, the salts in question will make themselves visible on the surface, in the form of a whitish efflorescence; in other cases, spots of almost pure iron rust are discoverable, arising from the decomposition of the copperas.

The ditch water of the rice-field is subject to the same changes, almost invariably containing copperas during a dry season, or after being allowed to stand any length of time; a few oak-leaves bruised, suffice to test the fact, by being added to a cup of the water, which becomes more or less blackened according to the amount of iron present. The ditch water also contains gypsum, which exists in the soil; it being formed from the decomposition of the copperas and alum by the natural lime of the soil.

The important facts then to be looked to are, first, the presence of copperas and alum in more or less abundance in many of our swamp lands; secondly, the injurious effects of these salts upon vegetation; and thirdly, their appearance at or near the surface in dry seasons. This necessarily leads to the inquiry as to whether there is a remedy to this evil.

It is beyond our control to arrest the formation of these salts; but fortunately, we are not without the means of modifying their action near the surface, where the roots of the plant are seeking nutriment; and to this I would call special attention, as to know the cause of the disease, without the remedy, although it may be of interest to men of science, is certainly of none to farmers; in fact, such a knowledge is sometimes worse than ignorance.

Much may be done by attending both to the culture of the rice and the application of certain substances to the soil; however, only those remedies will be alluded to that can readily be applied, commencing with the least important.

1st. By attending properly to the ditches and quarter ditches, making them in many cases deeper, thus draining more thoroughly that portion of the land above their level, and thereby preventing the water from below rising so readily to the surface.

2d. Frequent overflowing of the land (while not under culture), and change of the water, will carry away the noxious salts of the soil, by first dissolving them; it is not meant to recommend here, that the flows shall *immediately* succeed each other, but it would be well that a certain space of time should elapse between the respective flows; when the water is slightly affected with the salts, I do not think that any apprehension need arise about injury to the land, while not being cultivated.

The third method to be alluded to is the burning of the land, which, when dry, readily ignites and burns for some time. This acts beneficially, by decomposing the copperas and pyrites; burning is not so bad a method as might, at first sight, be supposed, for although a great deal of vegetable is destroyed, there is much that can be spared; and, moreover, the important part is not lost (the ashes), this remaining in the soil. In many places this method could not be applied, from the deficiency of vegetable matter; but fortunately, such lands are not apt to be affected in the way before alluded to.

4th. I now come to speak of the last and most efficacious method, one (situated as we are) that renders the others superfluous; it is where a substance is applied that directly decomposes the copperas and alum—this substance nature has lavished upon us, for the very purpose, as it were, of being applied to remedy these very evils that the lands are subject to—*marl* is what is here alluded to.

It has been mentioned that gypsum is found in many of the rice-field soils, arising from the decomposition of the copperas and alum by the natural lime of the soil. But the quantity, in most cases, is too small to act upon the entire amount of these deleterious compounds. What lime we may add then, either in the form of marl or burnt lime, acts in the same way, forming gypsum by the lime combining with the acid of the copperas.

A calculation has been made as to the quantity of copperas existing in an acre of one portion of Mr. Lowndes' place on the Combahee River (land on which rice will not grow,) and what amount of lime it requires to decompose it. The result of this calculation is, that in an acre of the land, one foot deep, there are four tons of copperas, mixed with alum, and it will require, to decompose it, about four tons of burnt lime, or ten tons of marl of 75 per cent. of carbonate of lime, which is equivalent to 300 bushels of marl, allowing 75 pounds to the bushel, corresponding to about 110 bushels of burnt lime. It may be well to state, that the particular soil in question may have but few parallels with regard to the amount of these poisonous salts, and there is no doubt that, on most lands affected in this way, an application of from 50 to 100 bushels, every four or five years, would improve them most materially, and that the excess of yield would far more than redeem the expense necessary to be incurred.

It has been ascertained that those rice lands highest up the river are (as far as observation has been made) freer from copperas than those lower down, and this no doubt arises from the fact, that they are older, and have therefore undergone a more complete decomposition. If this rule prove general, the former lands will not require the same amount of marl as the latter.

I know it may be said, that marl cannot replace the necessity of water, but it may save a crop a week or a month, until nature furnishes water; and it is not too much to say, that some crops might have been saved had the fields been marled, as the rice would thus have held out longer than it did, for reasons already made known, and perhaps even until the rivers were sufficiently high and fresh to be let on to the land. I omit altogether speaking of other advantages arising from the marl than those just mentioned, as it would occupy too much time and space in your pages.

Art. VI.—INTERNAL IMPROVEMENTS.

PACIFIC RAILROAD; SOUTHERN ROUTE—VICKSBURG AND SHREVEPORT RAILROAD—CONVENTION OF SAVANNAH, MOBILE AND NEW-ORLEANS—CONNECTION OF CHARLESTON AND SAVANNAH, AND OF BALTIMORE AND NEW-ORLEANS—VIRGINIA RAILROADS—TEXAS RAILROADS—BALTIMORE AND OHIO RAILROAD.

SINCE the preliminary surveys for a Pacific Railroad were undertaken by the Government, we have watched anxiously for some of their probable results. From the northern routes, now surveying, we have heard but little; nor do we expect to hear anything from them that would convince any one of their superiority over the extreme southern route, which has already been proved to be quite practicable—we mean that of El Paso and New Mexico. Recent surveys of this route have revealed "the astounding fact that a belt of country, varying from ten to one hundred miles broad, extends quite across the continent from the Atlantic to the Pacific, which is so level that a railroad may be extended the whole distance without traversing a mountain range. The Pacific Railroad may be extended in an air line from Sacramento to San Diego, on this route, with as little difficulty as on an open plain. This singular feature in the surface of the continent seems to have been intended by nature for a great national thoroughfare. The great back-bone of the North American Continent seems to have been broken down on this line, to let the Pacific Railroad pass gently over it. The great chains of the Alleganies on the east, and those of the Sierra Madre and Sierra Nevada on the west, sink down on this line to mere insulated hills; and the country slopes so gradually from the summit lands, east and west of the Mississippi, that the rivers along this line run in nearly easterly or westerly directions. On the western side of the continent, the Gila River runs almost due west, a distance of five hundred miles, and table lands south of its slope with a gradual elevation of ten or twenty feet to the mile, to the highlands, at its sources west of the Rio Grande.

From this point the country slopes, by a gradual descent almost imperceptible, through the Mesilla Valley to the plains around El Paso, and west of the river these plains gradually slope upwards to the table lands between the Pecos and this river, and those lands slope with an equally gradual descent to the valley of the Pecos. This valley is so elevated that it is but one or two hundred feet below the general level of the table lands extending from it to the sources of the Colorado; and from the sources of that river to the Mississippi there is not a single hill or mountain range to prevent the construction of a railroad to the Mississippi, opposite Vicksburg. From this point to Savannah, railroads have already been surveyed and completed on nearly half the route; and, what is worthy of remark, these roads extend in a line almost due east from the Mississippi to the Atlantic Ocean, without penetrating an elevated range of hills or mountains."*

The Chief Engineer of the Vicksburg, Shreveport and Texas Railroad has recently made a report, from which it appears that the "location of the section of the road from Red River to the Texas line has been completed. The Engineer found fewer difficulties than he expected. For a distance of twenty miles, the location does not vary more than half a mile in length from an air line. It has but four slight curves; amount of curvature about 6,600 feet; balance on straight lines. There will be no excavations or embankments as high as thirty feet, and only 8,200 lineal feet of trestle work and fifteen culverts will be required. Titles of relinquishment to the right of way were obtained without the cost of a single cent to the company; and many of the planters have taken contracts for the clearing and grubbing, at prices considerably below the original estimates. One planter—Dr. Flourney—took the contract from the Texas line to the eastern boundary of his plantation, a distance of some eight miles, and will take his entire pay in the stock of the company. Rapid progress is being made in the road throughout its whole length, from a point opposite Vicksburg to the Texas line."† When this road is completed, one will be able to travel, by railroad, from Boston, Mass., to Texas. Less than five years will complete this great work.

The subject of connecting the cities of Savannah, Mobile, and New-Orleans by a railroad, has already been much agitated in the South. This will, undoubtedly, be soon undertaken; and, together with the New-Orleans and Opelousas road, now under contract, would form the eastern half of the great connection between the Atlantic and Pacific. If the El Paso route is the one adopted by the Government, Savannah would become the great Atlantic Depot, and San Diego the Pacific. Col. Benton will, no doubt, make a great effort to have one of the northern routes adopted; but he will not succeed. He cannot show as good a route, in the north, as that of El Paso, so far as regards grading; and as to climate, he must convince Congress that a route impeded by snows and ice one fourth of the year, is preferable to one over the sunny plains of Texas, and the delightful table lands of New Mexico, before he can persuade them to abandon the southern route. Should, however, the "old man eloquent" succeed, with his fascinating rhetoric and figures, in gaining the preference for a northern route, the private enterprise of the South would take up the southern route alone, and complete the road. They are able to do it.

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* Houston (Texas) Telegraph.

† N. O. Com. Bulletin.

We are happy to see that the project of connecting the cities of Charleston and Savannah, by a railroad, is beginning to be taken up in earnest. The tide of railroad enterprise seems now to be tending strongly towards the South. The progress that railroads are now making in the South is truly wonderful. In 1821, Gen. Bernard reported the geodetic distance between Baltimore and New-Orleans to be 1,000 miles; and the route he proposed, at that time, as the best for the public mail, was the one through Washington, Lynchburg and Knoxville. On that very route, there is a continuous railroad now under construction, from Baltimore to New-Orleans. It will consist of the Baltimore and Washington Railroad; the Alexandria and Lynchburg road, about 160 miles in length, half of which is provided for; the Lynchburg and Tennessee Railroad, 209 miles in length, seventy miles in operation, the balance under contract; the East Tennessee and Virginia Railroad, 110 miles in length, under construction and provided for; the Georgia and Tennessee Railroad, 120 miles in length, believed to be completed; the Charleston and Memphis Railroad is under construction and provided for; the Selma and Tennessee River Railroad, about 250 miles in length, under construction; and certain other railroad connections with New-Orleans, which are also under construction, making an aggregate distance of about 1,250 miles, or a mail time of about 48 hours between the cities of New-Orleans and Baltimore. Upon this whole line there is no heavier grade than ninety feet, in Alabama; and this, it is believed, may be obviated.

The spirit for railroad improvements seems now to be thoroughly infused into the whole South, and we hear of movements being made for new roads almost weekly. We have now before us an able address, delivered by THOMAS MAXWELL, Esq., at a Railroad Convention recently held at Elyton, Alabama, on the subject of internal improvements in that State. The arguments are forcible and conclusive, and must dispel all doubts on the subject of the utility of railroads, if any thing can. To those familiar with the railroads of the North, and who daily witness their immense utility, and the increase in the value of property which they have created, it seems a little strange that there should, at this late day, be any necessity for speeches on the utility of railroads to any part of our country. But so it is. We regret that we are not able to transfer the whole of this valuable address of Mr. MAXWELL to our pages.

At the same Convention an address was also delivered by Judge JOHN D. PHELAN, on the same subject, which ought to be read by every citizen of Alabama. He shows clearly the immense advantage to the State that would arise from the construction of a great central north and south railroad in Alabama, having its southern terminus on the Gulf of Mexico, and its northern in the valley of the Tennessee River. He also shows that the State is able to build such a road, and how they can do it. The people have only to say the word, and it is done. We trust that no more Railroad Conventions on the subject will be necessary.

The Alexandria and Lynchburg Railroad is rapidly progressing. The rails are now being laid this side of Culpeper Court-House, and it is designed to commence laying them from Gordonsville also, provided an arrangement can be made with the Central Railroad to convey the iron over their road to Gordonsville. By the 15th of next January, the whole road from Alexandria to Gordonsville is expected to be completed.

In Texas, the railroad agitation still continues. It appears from the Texas papers, that Mr. I. Starry, one of the Directors of the Vicksburg and El Paso R. R. Company, recently addressed the citizens of Tyler on the subject of the immediate construction of the Texas road, to connect with the Vicksburg and Shreveport road, now in process of construction. The *Tyler Telegraph* states that the plan adopted is to procure subscriptions in shares of one hundred dollars each, payable in ten years, at the rate of ten per cent. annually, or ten dollars for every hundred. This subscription and the lands of the company, amounting to eight sections per mile, is to be put in pledge for the immediate loan from Northern capitalists of one million of dollars. The ten per cent. payable on the shares is simply to pay the interest on the borrowed money. The distance from the Texas line to Tyler, on an air line, is estimated at 75 miles: the road to be constructed in three years. The Directors pledge themselves that if Smith county subscribes her amount of shares, the road shall run through Smith county. Resolutions were passed pledging that county to subscribe two hundred thousand dollars.

Considerable excitement appears to prevail in certain quarters, regarding the Baltimore and Ohio Railroad. It appears to be in a very flourishing condition. The receipts of the road, for freight and passengers, for the month of September last, exceeded those of September, 1852, including the Washington branch, by the sum of $78,403 96. Taking the receipts of the main stem above those of September last, compared with those of September, 1852, give the following result:

	Passengers.	Freights.
September, 1853,	$48,648 93	$190,651 48
September, 1852,	32,808 58	124,862 97
Increase,	$15,840 35	$65,788 31

The receipts of the road, including the Washington branch, for the year ending Sept. 30, 1853, were as follows:

	Main stem.	Washington branch.
Total for 1853,	$2,013,826 50	390,940 33
The receipts for year ending Sept. 30, 1852, were	1,325,563 65	348,622 76
Increase,	688,262 85	42,317 57*

This certainly shows a very favorable state of its affairs, so far as receipts are concerned. We are inclined to think that its stock has been made too much the sport of the gambling bulls and bears of the stock market. Its last dividend was 7 per cent., and that of the Washington Branch, 8 per cent.

The Lexington and Maysville Railroad is now complete. It was opened throughout on Thursday, Oct. 6th, the occasion being celebrated with much spirit.

The Maysville and Big Sandy Railroad is rapidly progressing. The Company have purchased 5,500 tons of the best American manufactured iron, to be delivered early in the spring. They have also purchased eight locomotives of great power, and of the very best quality.*

Internal improvements in Virginia are making rapid progress. From the reports made to the Board of Public Works, on the 4th of Oct., it appears that contractors have commenced work on the Western division of the Covington and Ohio Railroad, and that an effort will be made to let to contract, during this year, fifty miles of the Eastern Division of that road.

The Chief Engineer of the Norfolk and Petersburg Railroad Company invites proposals until the 15th of December, for the graduation and masonry of eighty-two miles of the road, between Norfolk and Warwick Swamp, in Sussex County, Virginia.

The reports regarding the New-Orleans, Jackson and Canton railroad, are highly flattering. The whole distance, eighty-seven miles, from New-Orleans to the State line of Mississippi, says the *New-Orleans Crescent, is already graded*, except about thirteen miles of what is called crib-work, in the swamp at Pass Manchac, and these thirteen miles will be finished in about four months. The iron has already been purchased for one hundred miles of road—forty miles have already been received, and the remainder will be here as soon as the crib-work is finished. The contractors are now laying the iron on the track, commencing at Pass Manchac, and running north, although of course the work cannot progress rapidly while the sickness now prevalent makes it impossible to obtain labourers in sufficient numbers. Three locomotives, a number of freight and dirt-cars, are already here, and one locomotive, with dirt or gravel cars, are already on the road.

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* Louisville Journal.

The means of the Company are ample for carrying the work to Canton. The road between Jackson and Canton is already graded, and ready to receive the iron, which will be sent there as soon as it arrives—in December or January. The location of the road from the State line to Jackson is made; depots have been provided for at the several necessary points; and, in fact, everything promises a regular railroad communication with Canton by the close of the coming year, a distance of two hundred miles.

We observe, by the journals, that Wm. Gooding, Civil Engineer, has made a long report upon the subject of connecting the east and west portions of Chicago by a tunnel under the river. The cost will be a little under $185,000. This tunnel is found to be necessary from the crowded state of the shipping on the river, and the immense and increasing business of the city.

Art. VII.—BOOKS.

We have the pleasure of acknowledging the receipt of the following late and valuable works from Messrs. Frank Taylor, and Taylor & Maury, Washington:

LYELL'S PRINCIPLES OF GEOLOGY: a new and entirely revised edition, published by Appleton & Co., New-York: 1853. This work, now so extensively known to the scientific world, needs no additional praise. The name of Lyell, one of the most eminent of geologists, is sufficient. The present edition, we perceive, contains many valuable additions, for which Mr. Lyell is indebted to his late visit to this country.

APPLETON'S MODERN ATLAS OF THE EARTH, 1853.—Here is another work from the prolific press of Appleton & Co., which surpasses anything of the kind that has ever appeared. It is on the plan of Butler's Ancient Atlas, in large octavo form, and contains 34 maps. Without being unwieldy in form—the too common fault of atlases—it contains all that could be desired in a universal atlas. No one should be without it.

RATIONAL HISTORY OF HALLUCINATIONS. By A. Brierre de Boismont. Lindsay & Blakiston: Philadelphia, 1853. This work, by a distinguished French physician, is the most fascinating production of the kind that has ever appeared. It will be greedily devoured by the tens of thousands whose minds crave every thing pertaining to the marvellous and supernatural. It is, besides, a work worthy of the study of the philosopher, theologian, physician and lawyer. One of the principal propositions which the author attempts to prove, is, that hallucination is not a necessary accompaniment or symptom of insanity, but that in certain cases it may be considered as a purely physiological phenomenon.

THE LIFE OF WILLIAM PINCKNEY. By his nephew, the Rev. William Pinckney, D. D. Appleton & Co., 1853. The Life of Pinckney has been hitherto but imperfectly written, and it is the object of the present work to supply the defects of previous authors. It contains a number of Pinckney's letters that have never before been published. The style of the author is good, and the work is one which will be highly acceptable to the public.

HISTORY OF LIBERTY—THE EARLY CHRISTIANS. By Samuel Eliot. 2 vols. Little, Brown & Co., Boston, 1853. This is a work exhibiting much learning and research. As a historical work, on the history of the early Christians, and the first ages of the Christian Church, it is highly valuable and entertaining.

THE BOOK OF NATURE. Blanchard & Lea, Philad., 1853. This is a translation from the German of *Friedrich Schoedler*, Professor of Natural Sciences at Worms. It is an elementary introduction to the natural sciences; and as such is perhaps equal to anything of the kind that has ever been attempted. Its illustrations are numerous, and render it a very attractive volume.

THE LIFE OF THE RIGHT HON. EDWARD BURKE. By *James Prior*, Esq., 2 vols. 12mo. Ticknor, Reed & Co., Boston, 1853. These are very attractive volumes, portraying the life and character of one of the greatest men of modern times. Specimens of his poetry and letters are given, together with an estimate of his genius and talents, as compared with those of his great contemporaries.

AUTOBIOGRAPHIC SKETCHES. By Thomas de Quincey. Boston; Ticknor & Co., 1853. De Quincey's writings are too well known to need further eulogy. This volume is a collection of his miscellaneous writings, now collected from the British journals, and enlarged and remodelled, so as to give them a character of absolute novelty. It is quite a readable book.

ALL'S NOT GOLD THAT GLITTERS. Appleton & Co., 1853. A clever little volume full of spicy anecdote, admirably calculated to illustrate its title. It is well written, and is worth reading.

CIVIL LIBERTY AND SELF-GOVERNMENT. By Francis Lieber, LL. D., C. M. French Institute, &c., &c., author of "Political Ethics," "Essays on Labor and Property," "On Criminal Law," &c., &c. Two vols. 12mo. Lippincott, Grambo & Co., Philadelphia.

The name of FRANCIS LIEBER stands out in bold relief among those of the greatest of American authors, and his works occupy the front rank among the standard literary productions of our country. He is original, learned, and profound, grasping his subject with the penetration of intellect, and arriving at his conclusions clearly, forcibly, and logically. Fully understanding his subject, and the exact import of words, he illuminates it with a flood of wisdom, condensed from all the sources of the past, and matured and methodized by all the learning and science of the present.

This, the last of Dr. Lieber's works, is dedicated to those who were his pupils in the State College of South Carolina, where he is now Professor of History and of Political Philosophy and Economy. It is a work of rare merit, and should be read by every citizen, and adopted as a text-book in every academy, college, and university in the Republic.

In the first volume, Dr. Lieber treats of Civil Liberty, Ancient and Modern—Ancient, Mediæval, and Modern States—Anglican Liberty—National Independence—Personal Liberty—Bail—Penal Trial—High Treason—Communion—Locomotion—Emigration—Liberty of Conscience, Property, Supremacy of the Law—the Army—Petition, Association, Taxation—Responsible Ministers—Representative Government, &c., &c.

In the second, he discourses the Effects and Uses of Institutional Self-Government, its advantages, dangers and inconveniences—showing that institutional government is the only one that prevents the growth of too much power. Next he treats of Imperatorial Sovereignty, examining its origin and character—of Centralization, and the influence of capital cities. Lastly, he discourses with great ability the *Vox populi Vox Dei* doctrine, showing that the *Vox populi* is not always the *Vox Dei*.

Dr. Lieber's extensive historical knowledge enables him to illustrate all his subjects in the most forcible and interesting manner, relieving them of that dryness which few writers have hitherto been able to dispel. His style is simple and lucid, and every page is entertaining.

In the last five chapters of the Appendix to the work, Dr. Lieber discusses the French Constitutions, from that under Louis Philippe to the one adopted by Louis Napoleon.

The whole work seems to be the results of Dr. Lieber's extensive political researches—the condensed political wisdom of past ages.

Art. VIII.—REMARKS ON DR. CARTWRIGHT'S PAPER—"EXTENSION OF THE SUGAR REGION."

In one of the last numbers of the Review, appeared an article from Dr. Cartwright, "On the Further Extension of the Sugar Region," in which there are many statements that are entirely erroneous. At present, I refer more particularly to his estimate of the relative production of Sugar in Mexico, Cuba and Louisiana. He calculates the first at 2,240 lbs. per acre, the second half as much, or 1,120 lbs. per acre, the third at 3,000 to 4,000 lbs. Every one of these estimates is perfectly erroneous. The average production of Sugar per acre in Mexico, is from 3,000 to 4,000 lbs.—depending principally on the skill evinced in the manufacture—and has, by good management, on the improved principles adopted in Louisiana, been raised to 8,000 lbs. per acre. The system of manufacture usually adopted, is of the rudest and most imperfect kind—pendicular mills, and the rest to match. These facts I have on the authority of many gentlemen from Mexico, both foreign and native, who have been engaged in the manufacture of Sugar. I have even been told of 11,000 or 12,000 lbs. per acre, but these I have not considered as supported by sufficient proof. As for the production in Cuba, he is equally at fault. There are two kinds of land in Cuba, which are cultivated in Sugar, called the "red lands," and the "black lands." The first of these are relatively poor, and only produce about 1,500 or 2,000 lbs. per arpent; but on the black lands, the production is much greater, as much, on an average, as from 4,000 to 6,000 lbs. per arpent. This, too, I have on high authority, not from travellers running through the country, for a few days, and then imagining they know all about it, but from men who have made a business of the cultivation or the manufacture of Sugar, and who have resided long enough in the country to learn the truth from their own observations. Strange to say, too, his statement of the yield of Sugar in Louisiana is equally wrong. The last season, ('52 and '53) was remarkably favorable for the Sugar planters, yet the average yield, all around, cannot have exceeded 1,000 lbs. per arpent. Ask any Sugar planter if his crop averages, plant and rations, more than 1,000 lbs., and he will say, no. In one statement, however, he is very right: one hand in Louisiana is equal to half a dozen in most other countries, and that, too, where the treatment of the slaves is much more severe. A gentleman, a Sugar planter from Guadaloupe, after riding through a Sugar plantation, told me that he was much struck with the industry of the slaves, even when the overseer was away. Another point in which we are far superior to most Sugar-growing regions, is in the intelligence and skill manifested in both the cultivation and manufacturing of Sugar. There are but few estates, either in Mexico, Cuba, or any of the other West India Islands, which equal, in these respects, the average plantations in Louisiana, even though here there is great room for improvement. This difference is particularly great, in regard to the cultivation of the Sugar Cane; for in most other countries, this is carried on in the rudest manner. The two last points are the only ones in which Louisiana is at all equal to the other Sugar-growing portions of the Americas. When any of these countries come to be annexed, the intelligence and skill now displayed here, will be equally remarkable there, and in a short time the cultivation of Sugar in Louisiana would become extinct. (We differ with the writer here.—Editor.) However, the benefits resulting from annexation would more than overbalance the evils which would result from the extinction of the Sugar culture in Louisiana, and it would be well if the Sugar planters would begin to consider what kind of cultivation could be most profitably pursued by them in that case.

P. S. The calculation of Dr. C. in regard to the yield in Mexico, may perhaps refer to those parts of Mexico where the "peloncilla" is made. This peloncilla is made merely by boiling down the cane till it becomes a solid mass, and it can easily be seen what an immense loss must take place. If so, his calculations are nearer the truth—but I refer to the regions about the City of Mexico, in the valleys of Cuatla and Cuemavaca, the real Sugar regions of Mexico.

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